



PSYCHIATRY

PSYCHIATRY

A SHORT TREATISE

BY

WILLIAM A. O'CONNOR

L.M.S.S.A.(Lond.) ; D.P.M.(Lond.)

*Medical Superintendent, Ashwood House, Kingsteigford, Staffs. ;
late Assistant Medical Officer, Maudsley Hospital ;
Tutor (Psychology) of Extra-Mural, University,
and W.E.A. Classes.*

BALTIMORE
THE WILLIAMS AND WILKINS CO.

1948

*

132
000

PRINTED IN GREAT BRITAIN BY
JOHN WRIGHT AND SONS LTD.,
THE STONEBRIDGE PRESS
BRISTOL

Bureau Edn. Res. Research	
DAVID HALL TRAINING COLLEGE	
<i>Dated</i>	11.8.54
<i>Accs. No.</i> 345

THIS BOOK
IS DEDICATED TO
THE FRIENDS I MADE DURING
MY STAY AT
TRINITY COLLEGE, OXFORD
1915-1918

PREFACE

PARADOXICAL though it must seem to the mechanistically orientated psychiatrist of to-day, there still flourishes amongst us the belief that mental illness is a matter of psychic derangement, and that therefore a study of the mind and of its vagaries still constitutes a legitimate subject for the psychiatrist, whatever shade of opinion he may choose to hold.

It is this belief, especially, which has prompted me to write the present volume.

Moreover, the need for such a book, within whose modest compass could be compiled the theoretical and practical implications of modern psychiatric knowledge, has been before my mind for many years. Whether it has been satisfied in the following pages I must leave to the judgment of the reader.

The path of the beginner in psychiatry is in truth a hard one, and if I have succeeded in making it smoother and in desensitizing him to his earliest difficulties, I shall account my task well fulfilled. If he finds the subject matter close-knit and concentrated, I dare hope that he will also find it lucid and comprehensive.

The implements of a new science consist in the main of words whose old-established meaning has had to be discarded

or modified. The reader should obtain a fair working knowledge of psychiatric nomenclature by a preliminary study of the Glossary at the end of the book.

Case material has been confined to descriptive mental symptomatology.

Psychiatric bibliography has now reached such gigantic proportions that I have deemed it wiser to confine my references to the body of the work rather than overburden the reader with a necessarily incomplete list of works at the end. To all those writers whom I have had the pleasure, if not the temerity, to mention in these pages, and to the many more not so mentioned, I wish to tender my most grateful acknowledgments.

Above all, my most sincere thanks are due to the publishers for their unfailing courtesy, their continued interest, and their valuable advice.

WM. A. O'CONNOR.

ASHWOOD HOUSE,
KINGSWINFORD,
STAFFS.

September, 1947.

CONTENTS

CHAPTER I

	PAGE
GENERAL PRINCIPLES AND PLAN OF SUBJECT	I

CHAPTER II

PSYCHOSOMATIC ASPECTS, CLASSIFICATION, AETIOLOGY	7
--	---

CHAPTER III

PSYCHIATRIC EXAMINATION	29
-------------------------	----

CHAPTER IV

SYMPTOMS OF MENTAL DISEASE

BEHAVIOUR—PSYCHOMOTOR SYMPTOMS—DISORDERS OF SPEECH AND THOUGHT—DISORDERS OF MEMORY—DISORDERS OF PERCEPTION —CONSCIOUSNESS AND ITS DISORDERS—DISORDERS OF AFFECT	40
---	----

CHAPTER V

PSYCHIC MECHANISMS

IDENTIFICATION—PROJECTION—INTROJECTION—RATIONALIZATION— OVER-COMPENSATION—FANTASY—REPRESSION—REGRESSION— SYMBOLISM—DISSOCIATION	70
---	----

CHAPTER VI

THE PSYCHONEUROSES

INTRODUCTORY REMARKS—GENERAL FEATURES OF THE PSYCHONEU- ROSES—GENERAL CONSIDERATIONS—INDIVIDUAL SYNDROMES : NEURASTHENIA ; HYPOCHONDRIASIS ; HYSTERIA ; OBSESSIONAL STATES ; ANXIETY STATES	88
--	----

CHAPTER VII

ANALYTIC THERAPY AND PSYCHO-ANALYTIC THEORY	136
---	-----

CONTENTS

CHAPTER VIII

THE PSYCHOSES

PAGE

INTRODUCTORY REMARKS—THE AFFECTIVE PSYCHOSES: MANIC-DEPRESSIVE PSYCHOSIS; INVOLUTIONAL MELANCHOLIA -	146
--	-----

CHAPTER IX

THE PSYCHOSES—*continued*

PARANOIA AND THE PROJECTIVE REACTIONS: PARANOIA; PARAPHRENIA; DEMENTIA PARANOIDES; OTHER TYPES OF PROJECTIVE REACTIONS - - - - -	189
--	-----

CHAPTER X

THE PSYCHOSES—*continued*

THE SCHIZOPHRENIC PSYCHOSES: SIMPLE TYPE; HEBEPHRENIC TYPE; CATATONIC TYPE - - - - -	212
--	-----

CHAPTER XI

THE PSYCHOSES—*continued*

PSYCHOSES ASSOCIATED WITH MYOCLONIC STATES: EPILEPSY: CONVULSIVE OR MAJOR ATTACK (GRAND MAL); MINOR ATTACK (PETIT MAL); EPILEPTIC EQUIVALENTS; EPILEPTIC VARIANTS: JACKSONIAN EPILEPSY, UNCINATE EPILEPSY, PYKNOLEPSY, CATAPLEXY, NARCOLEPSY, MEDULLARY EPILEPSY, DÉJÀ VU AND JAMAIS VU—HUNTINGTON'S CHOREA—ENCEPHALITIS LETHARGICA	237
---	-----

CHAPTER XII

PSYCHOTIC REACTION AND SENESCENCE

SIMPLE SENILE DETERIORATION—ACUTE DELIRIOUS REACTIONS—SENILE DEMENTIA—ALZHEIMER'S DISEASE—PICK'S DISEASE—JAKOB-CREUTZFELD DISEASE - - - - -	264
---	-----

CHAPTER XIII

PSYCHOTIC REACTION AND CEREBRAL VASCULAR DISEASE	275
--	-----

CHAPTER XIV

PSYCHOTIC REACTION AND DRUG ADDICTION: THE ADDICTION NEUROSES

ALCOHOLISM: PATHOLOGICAL INTOXICATION, DIPSOMANIA, DELIRIUM TREMENS, KORSAKOW'S PSYCHOSIS, ALCOHOLIC DETERIORATION—MORPHINISM—COCAINISM—OTHER ADDICTIONS - - -	280
--	-----

CONTENTS

xi

CHAPTER XV

PSYCHOPATHIC PERSONALITY

PAGE
300

CHAPTER XVI

PSYCHOTIC REACTION AND SYPHILIS

CEREBRAL SYPHILIS—DEMENTIA PARALYTICA—TABES DORSALIS - 306

CHAPTER XVII

PSYCHIATRIC ASPECTS OF CERTAIN OTHER ORGANIC DISEASES AND INJURIES

INFECTIVE-EXHAUSTIVE STATES—HEAD INJURIES—INTRACRANIAL TUMOUR—DISEASES OF THE ENDOCRINE SYSTEM: HYPOTHYROIDISM; HYPERTHYROIDISM; PARATHYROID DISEASE; PITUITARY DISEASE; ADRENAL DISEASE—PELLAGRA—PERNICIOUS ANÆMIA—DISSEMINATED SCLEROSIS—CHEMICAL TOXINS: BARBITURATES, BROMIDES, CARBON MONOXIDE - - - 319

CHAPTER XVIII

PSYCHOSOMATIC DISTURBANCE IN THE CHILD

GENERAL CONSIDERATIONS—CLINICAL INVESTIGATION—SYMPTOMS MAINLY EXPRESSED PHYSICALLY: ALIMENTARY SYSTEM; URINARY SYSTEM; SEXUAL SPHERE; PSYCHOMOTOR SPHERE; VASOMOTOR SYSTEM—SYMPTOMS REFERABLE TO THE PSYCHIC STRUCTURE: SLEEP DISORDERS—STAMMERING—OTHER SYMPTOMS INDICATIVE OF PSYCHIC CONFLICT—PSYCHONEUROSES: HYSTERICAL REACTIONS; ANXIETY REACTIONS; OBSESSIONS AND COMPULSIONS—PSYCHOTIC REACTIONS—GENERAL PRINCIPLES IN THE TREATMENT OF PSYCHIC DISORDERS IN CHILDREN - 334

GLOSSARY - - - - - 367

INDEX - - - - - 375

A Glossary of Psychiatric Terms
will be found on page 367.

PSYCHIATRY

CHAPTER I

GENERAL PRINCIPLES AND PLAN OF SUBJECT

No somatic disease exists which has not also its psychological aspect. No psychological illness exists which has not also its somatic aspect.

THE above axiom has been kept in view throughout the compilation of this work. No human aberration from the normal, of whatever nature it may be, stands in isolation, although the accent placed upon its physical or its psychic manifestations must of necessity vary enormously. A young adult suffering from rheumatic fever must, in the first instance, be put to bed and placed on salicylates, whilst during the whole illness a careful watch is kept on the state of his heart. But one has some difficulty in finding mention made in any text-book on medicine of the sufferer's mental trauma during and after his illness—yet such trauma is invariably present.

A middle-aged schizophrenic is best treated within the walls of a mental hospital, yet his physical symptoms, frequently so strange and inexplicable, are rarely absent. Again, the anxiety hysteric must exteriorize her troubles via the bodily systems, and the diabetic has his depressions and often his obsessions. A young woman suffering from an adrenogenital syndrome shows depression, paranoid feelings, and may commit suicide.

A man of fifty with a blood-pressure of 280 mm. shows periodic attacks of anxiety; a man of fifty with a history of anxiety attacks lasting all his life develops a blood-pressure of 280 mm. A woman of forty who has complained of frequency of micturition since she was eight years old is now in hospital for the removal of a hydronephrotic kidney. Are

we to label the last two cases as medical and surgical respectively? By this time, yes. But would it not have saved much suffering and unhappiness had psychiatric advice been sought early on in life?

Such is still the state of the art of healing that our mechanistically-taught physicians and surgeons can only direct their interest and energies to things seen, heard, and felt; that our general practitioners tend to miss the psychic in a welter of "syndromes"; and that many of our psychiatrists prefer to press the magic button rather than analyse the complex pattern of a psychosis or a psychoneurosis. Until psychological medicine is rescued from the domination of the general surgeon, the pseudo-dietician, the machinist, and the ill-guided, wild anti-Freudian (both indigenous and foreign), the study of mental illness is doomed to remain a thing of physical interpretations—a hunting ground for the mutilating speculator, the tonsil snatcher, the gynæcological sterilizer, the journeyman electrician, and those many others whose conception of mind harks back to the end of last century.

From these remarks the reader may gain the impression that this work will prove to be something in the nature of a badly orchestrated symphony in which the 'New Psychology' plays a dominant part. Nothing of the sort has been conceived or attempted. Due and fair consideration is given throughout to all modern methods of treatment, whether their rationale is known or as yet unknown, and all theories and hypotheses of standing are freely used. Our objections are directed at the domination of psychiatric study by non-psychiatrists, or by those who, though psychiatrists in name, are emotionally wedded to the operating theatre, the physiological laboratory, or the chemist's bench. At the same time we welcome and seek their co-operation, even as they might, with advantage to the patient, seek ours. It is towards this end that medical men and women must strive, and it is with this end in view that our medical schools should shape the clinicians and therapists of the future. That this state of affairs does not yet exist is only too clear. Some of our universities are still sending out their raw material imbued with the notion that almost every psychiatric state is the result of some toxin

floating around in the blood-stream and that the psychoneuroses constitute the domain of the neurologist—even as the sexual inversions and drunkenness belong to the police surgeon or the lecturer on forensic medicine.

In the compilation of this work there is, perhaps, nothing original or epoch making, the writer having merely incorporated those tenets of twentieth-century psychology without which the study of mental dysfunction must remain barren. That many of these tenets were first discovered and elaborated by Freud is a matter of simple history, and to him, therefore, homage is due.

For the successful study of psychiatry we need, in the first place, a sympathetic approach—that same sympathetic approach which has been responsible for the emergence of psychiatry from the fog of ignorance and cruelty in which it had lain lost for centuries. But sympathy also implies a personal attitude towards the patient which is neither coloured by cynicism nor inspired by punitive tendencies. Next in importance we would place daily contact with patients—that is, clinical experience—at one's own mental hospital or home. Such contact gives us the opportunity of studying the individual as an individual, and the circumstances attendant upon his fall from certain accepted standards of thought, behaviour, and feeling. In clinical psychiatry diagnosis still rests on a thoroughgoing historical account of the patient's illness, and not primarily on laboratory methods. Types, or clinical entities, are perhaps better studied by frequent visits to other mental hospitals, where the individuality of the patient can, for the time being, be allowed to remain hidden behind a wealth of symptoms indicative of the particular clinical or classificatory entity whose general manifestations we are investigating. A third type of clinical experience concerns itself with the observation of mental aberration *in statu nascendi*. It is an indispensable kind of experience, and should be gained in general medical practice, first and foremost; also in the out-patient departments of general hospitals and in the out-patient psychiatric clinics.

Finally, the psychiatrist should keep an open mind; a mind receptive of new ideas, yet possessed of that wisdom which

suspends judgment whilst continuing to seek evidence ; a mind, also, which shrinks from forcing a rigid diagnostic mask upon a patient whom a descriptive provisional label might have fitted better.

PRELIMINARY CLASSIFICATION

Classification in psychiatry, as in many other departments of scientific study, is still incomplete. But its very incompleteness points to its vitality as well as to our insufficient knowledge. Many types of classification are in use and an attempt will be made later on in this work to present a simplified form of a kind which will, it is hoped, be acceptable and at the same time comprehensive. At this stage, however, it will be helpful to summarize the main headings under which our subject can be studied.

1. Mental Deficiency.—The subject of amentia has been admirably and exhaustively treated by A. F. Tredgold, to whose work the student is referred*. Aments are heirs to the same kinds of mental illness as those whose intellectual equipment reaches the agreed standard, the complicating factors in their clinical manifestations being the degree of their mental deficiency and their constitutional predisposition to certain disorders peculiar to themselves.

2. Constitutional Psychoses or Reaction Types.—In this group of psychoses neither aetiology nor demonstrable somato-pathology has as yet been discovered, although many claims to such discovery have been made and submitted. No definite, or even probable, initiating focus is known. At the most we might postulate the presence of a strong constitutional predisposition ; but such a hypothesis might well lead us into therapeutic nihilism unless we are prepared to make use of it merely as a convenient label pending further research.

The representatives of this division are the Manic-Depressive Psychosis (Kraepelin), and the Schizophrenic Psychosis (Bleuler). Under this heading too we place that variety of affective disturbance known as Involutional Melancholia (Kirby, Henderson and Gillespie), and Paranoid Reaction

* A. F. TREDGOLD, *Mental Deficiency*.

types (Kraft-Ebing, Magnan, Kraepelin). It may be added here that the Kraepelinian distinction between the manic-depressive reaction type and the schizophrenic types, based upon disturbances of affect, is not by any means a wholly acceptable one. In the main, however, we look upon the former as an affective reaction type, upon the latter as a, usually, progressive fragmentation of the personality. Schizophrenia has, for all practical purposes, been divided into the varieties known as Simple, Hebephrenic, and Catatonic.

Paranoia occupies a somewhat uncertain position in our classification. It is not a purely affective reaction, neither does it lead to personality disintegration; it might be looked upon as an almost lifelong series of syllogistic arguments whose ultimate premiss consists of a complex-determined false belief. Were it not for the circumstance that much of the patient's argumentation is intermingled with pseudo-logic this reaction type might, with some semblance of pertinence, have been called a psychotic disturbance of the intellect. In this way all the major characteristics of the human psychic structure would have been represented in the field of psychopathology. There are, however, objections to such over-simplification of our subject, as we shall see later.

3. Organic Psychoses or Reaction Types.—When the cerebral cortex is affected by a diffuse disturbance as a result of some somato-pathologic condition anywhere in the body, we may speak of any resulting severe mental abnormality as an organic psychosis or reaction type. Such diseases as general paresis, cerebral arteriosclerosis, certain toxic states, and many others would come under this heading.

4. Psychopathic Personality.—A definition, or rather a description, of this type of almost lifelong antisocial reaction patterns will be given under the proper heading.

5. Psychoneuroses.—Although some authorities hold the view that the psychoneuroses should not be separated from the psychoses, there exist nevertheless between these two major diseases of the psyche such important and striking distinctions that they should, for all purposes, occupy different categories. We shall not make for clarity in clinical thinking by saying, as some writers do, that hysterical and obsessional

states coming on after the age of thirty should be looked upon as psychoses.

In the description of the psychoneuroses we shall bear in mind the presence of those contending forces called civilization, with its repressive trends, on the one hand, and the human instinctual drives on the other. A psychoneurosis may be viewed as a protest of the individual against being engulfed in the large masses of his fellow-beings amongst whom he might suffer belittlement, standardization, and generalized feelings of inferiority. We shall also find certain mechanisms at work in all cases, such as conflict, defence, and adjustment mechanisms.

The grouping of the psychoneuroses presents some difficulties, and it will be more convenient to postpone their classification to a later chapter, when an attempt will also be made to establish certain widely accepted diagnostic distinctions between them and the major psychoses.

Psychiatry, then, concerns itself with the assaying and treatment of psychosomatic deviations from the normal. Due regard is therefore paid to both the psychic aspect and to those somatic aspects that are concomitants, causes, or sequelæ. Such deviations are, not strictly accurately, called mental diseases; but until our knowledge of them is more extensive we must continue to use the current nomenclature.

Although much has been done in recent years towards a more accurate grouping and naming of the different pathological entities, classification remains incomplete. How much progress has been made in this direction is well brought out when we compare our modern classification with the system still adhered to by certain official bodies, and by our Courts of Law, whose inefficiency in dealing with the realities of human misery and shortcomings is only equalled by their authoritarian rigidity.

CHAPTER II

PSYCHOSOMATIC ASPECTS. CLASSIFICATION. AETIOLOGY

PSYCHOSOMATIC ASPECTS

A MENTAL illness is the resultant of many inimical influences, most of them, if not all, unconscious to the individual, which are brought to bear upon the human psychosomatic structure, and from which both the psyche and the body receive varying grades of injury. The majority of psychotics show also some physical aberration; strangely enough it cannot be said that the majority of physically ill persons show psychotic symptoms. Is it possible that some physical illnesses represent the individual's unconscious compromise, thus saving him from some mental catastrophe? And that the psychotic has failed to focalize his difficulties in the soma and has merely retreated from general bodily care, into a mental deviation? It is true that some psychotics, the melancholics for instance, appear to be much worried about some anatomical focus; but this focus seldom shows any appreciable abnormality, thereby furthering the hypothesis that they have not succeeded in their quest for physical self-punishment and console themselves with phantom disease. Certain it is that body and mind interact, and that of the two the mental apparatus is the more potent in its domination. Those who look for focal sepsis in all mental diseases are from all points of view barking up the wrong tree. After some multiple bodily mutilation they do no doubt obtain improvement statistics, if only for the reason that the patient who has undergone such treatment has either received his full quota of self-punishment, or has undergone the fear of annihilation so thoroughly that his pre-existing conflicts have been overwhelmed by the threatened major disaster. Focal extirpations, like shock therapy, may

vestige of psychiatric reaction could be diagnosed. Here, then, the underlying personality type must be the effective factor in shifting the balance.

On the other hand, in such a disease as general paresis (parenchymatous syphilis) the earliest symptoms are usually mental; yet the form taken by the mental disorder depends upon the patient's previous psychic make-up. Males are more liable to it than females in the proportion of four to one, and it is almost unknown amongst the natives of many tropical and subtropical countries where syphilis is rife. No explanation of these peculiarities is as yet forthcoming. The possibility of a psychic factor cannot be overlooked; and in this connexion it is interesting to note that the general parietic begins by showing a subtle neglect for the finer points of civilized behaviour and a lack of wisdom in judgment.

Recent biopsies of the brains of schizophrenics have shown degenerative changes of the ganglion cells, with progressive and regressive reactions of the glia and blood-vessels; the changes were slender and not very clear. Biopsies of the testes of schizophrenics were also carried out by other workers, who found atrophy of tubules and their contents characterized by hyalinization of the basement membrane, arrest of spermatogenesis, and progressive degeneration of epithelial elements. The internal secretion of the testes appeared to be well preserved but spermatogenesis was arrested. It was thought that the disorder of the testes was not causative of schizophrenia, although considerable evidence could be adduced that the changes *may* antedate the appearance of mental symptoms. It is pertinent to ask how early in the life of a schizophrenic we may expect psychic symptoms indicative of the presence of this disease; it is almost certainly in early childhood. And if so, then the unhealthy mental habits of the child might well precede the above physical changes. The flight from reality would precede the later irreversible dementia, when irreparable neurological damage may have been inflicted. If we could establish certain prognostic criteria relative to the possible threat of schizophrenia in early childhood, it is at least possible that some form of preventive psychotherapy might be evolved. It will be seen that here again we are confronted with the

give results ; it is their rationale from a physical point of view which is obscure, if indeed there be one at all.

The question of the interaction between body and mind remains as yet unsolved. We may well ask whether in point of fact the question is a scientifically legitimate one. Is it not far more logical to look upon the whole matter as being two aspects of the same process ? Psychic and somatic phenomena take place in the same biological system ; psychological phenomena should be studied in their psychological causality with intrinsically psychological methods, and physiological phenomena in their physical causality with the methods of physics and chemistry.

The measure of the importance of this problem is reflected in the fact that psychiatrists are divided into two camps : those who are investigating physical changes as possible causes of mental illness, and those who explore mental changes as prime originators of all illness. In between these two well-defined classes of workers we find a number of intermediate shades of opinions and interests. When divorced from unscientific emotionalism such a wealth of divergent attitudes towards psychiatric subjects may be said to be a healthy omen of progress.

We are entitled to inquire why some somatic deviations are associated with, or soon followed by, psychotic (or psychoneurotic) states ; why some physically ill people never develop such states ; why many declared psychotics show physically no difference from the usually accepted standards of health ; why so many other psychotics, whilst not exhibiting any gross somatic symptoms, are nevertheless poor in physique—and yet manage to live the allotted span.

For instance, a delirious reaction may be associated with a toxæmia, some organic disease, or it may be psychogenic, as in epilepsy, hysteria, and schizophrenia. It is psychiatrically characterized by clouding of consciousness, deficient grasp of the patient's surroundings, disorientation, fear states, and hallucinations. We have seen such reactions in carcinoma of the lung, sarcoma of the femur, tonsillar abscess, and influenza, besides many other acute infections. We have also met with precisely the same physical illnesses in which no perceptible

problem as to whether the psychic or the somatic changes take precedence in point of time.

So far as is known, then, somatic diseases may precipitate a mental illness; secondly, an existing mental illness may be improved or removed by an intermittent somatic illness; thirdly, there is now ample evidence that psychic illness may cause organic changes. The whole question centres round the concept of reversibility. Emotions may both arouse and ameliorate psychoses; a bodily illness may act as a catalytic agent, either curing or causing mental illness, but taking no part in the process otherwise. Shall we say that a reinvestment of libido takes place?

It is likely that a patient must already be sensitized psychically—that is, have complexes which can easily be stirred into activity and which act like psychogenic trigger zones.

Another theory is based on the concept of anaphylactic shock. If an emotion is prevented from overflowing into motor activity severe somatic disturbances of an endocrine or cellular nature may result, the inhibition of the emotion having exerted a pathogenic influence on the soma. Hyperthyroidism, glycaemia, leucopenia, may all occur under stress. Sensitization is caused by repeated psychic shocks, and the anaphylactic symptoms, the psychoses, are stimulated into activity by the agent, be it fever, trauma, or any other. It is the psychic shocks that constitute the predominating element, and they are far more important than either heredity or constitution.

Those who accept the psycho-analytic theory of the unconscious workings of the psycho-soma will see in the foregoing remarks scarcely more than a laudable attempt at rationalization. Their methodology has encouraged them to propound one of the most provocative hypotheses regarding this question of the interaction of body and mind of this or any other century. Energy, it may be presumed, is captured by means of bodily receptors and transformed through structuralized patterns, both anatomical and chemical, called the organs. The process, and the organs themselves, are co-ordinated at various levels and integrated by the central nervous system. The energy is used by metabolic needs and by behaviour patterns, all of which concern themselves with the continuance

of life, and are known as libido. So that any deviation in the unconscious is capable of causing disorder in the delivery of energy at either the metabolic or the conduct level, the former causing organ disease, the latter mental illness or anti-social behaviour. On this hypothesis it may be stated, therefore, that the psychological component may at least participate in bringing about irreversible tissue changes in bodily organs. The psychological component here referred to is the super-ego : it works out its threat of punishment for guilt upon the organs, causing reversible or irreversible disease. During the neurotic stage of organ maladjustment the changes are still reversible ; but once the anatomical pattern has been invaded irreversibility sets in, the psyche having gone too far with its aggressive impulses. Certain types of asthma, a host of skin diseases, peptic ulcer, spastic colon, and endocrine disturbances will come to mind, as also the hysterical conversions, the substitution mechanisms, and the somatic projections of the mentally ill. But many more organic diseases in their nascent or incipient stages, when diagnosis must still remain suspended for want of fully observable or communicable signs and symptoms, may in the near future be classed under the psycho-neurotic manifestations and treated as such.

A consulting physician has estimated that 172 of the last 500 patients sent to him for a diagnosis suffered solely or predominantly from psychic disorders, 116 showing no organic pathology at all, and 56 only minor grades.

The question arises as to which factor, or factors, determines the choice of organ. According to some, constitution is the factor of most importance ; others say that psychological conditioning holds the field. Jelliffe states the case for psycho-analysis when he says that in neurotic individuals as a result of mental conflict, libido invests a certain organ or system. The choice of organ or system is in some cases known to be based on parental illness or disability, especially of that parent, usually of the same sex, towards whom an unconscious aggressive attitude is operative and for which aggression guilt-punishment is sought. In other cases—asthma, for instance—a threat to the mother love and mother protection may precipitate an attack ; and even in allergic

types of asthma we frequently find that the allergic substance has an emotional symbolic value for the sufferer.

It may be stated that the elements recurring most frequently in the psychogenetics of somatic deviations are threats of losing mother (or father) love, dread of insecurity, *fear* of independence, and the insistent drive of the super-ego.

Psychobiologists, like Adolf Meyer, are orientated in very much the same direction when they speak, rather superficially, of the family-bound characteristic of all psychotics, and the latter's correlative lack of environment contact. They advocate de-familization and environmentalization; the narcissism must be changed into altruism; the patient's self-interest must be replaced by reality interest. The commonest regression, they hold, is the one towards the patient's own early family life; he behaves and thinks in terms of childhood, his own childhood in particular, and his symptoms may be the reaction formation to this tendency. He lives out his repressed feelings (abreaction) and thoughts when he reaches his new-found home—the mental hospital—with its nurses, the other patients, and the doctor, who act as parent surrogates, good or bad, liked or disliked. Psychotherapy is carried out and the tenets of psycho-analysis are freely used.

The problem of organ pain and its psychic implications and symbolisms should also be considered in this connexion. To those of us whose daily task it is to analyse, interpret, and relieve mental distress, the frequent obtrusion of physical pain into the historical records as given by patients constitutes a phenomenon hardly less familiar than it must be to the physician in general medical practice. Not all such pains encourage the conviction, so tenaciously held by the sufferer, that they owe their genesis to organ pathology, even though their clinical localization is accurate, if not demonstrable, and we must therefore be prepared for their translation in terms of psychological conflict. Thus, migrainous headaches not infrequently represent the repression of a forbidden fantasy which must not be allowed access into consciousness. Pain as a flight into illness is a mechanism understandable even to the lay mind, as is also the recurrence of a pain which had at one time been founded on a physical basis and had at that

time carried certain material advantages in the patient's milieu. Again, it may symbolize a warning to prevent a threatening moral lapse, or a punishment or penance, or it may be an expression of a sado-masochistic complex, or even a reflex mental excitement. The mechanism of displacement, as it occurs so fantastically in dreams, may be here operative as well, as from the sex organs to the sacrum or lumbar muscles.

From the physiologists we gather the information that differences in the reaction of individuals to pain are not the result of individual variations in the pain threshold, but express the characteristic individual response; and that the reaction to pain at different times of the day may vary greatly while the threshold remains constant. In other words, there exists an average pain threshold, but the reactions to pain vary with the sufferer.

We have still not answered all the questions set at the beginning of this chapter. We have tried to make out a case for the psychogenesis of much physical illness. And in this attempt we are joined by a number of psychiatrists and physiologists too great to quote even by name. Experimental and clinical evidence are overwhelming: blisters and petechial hæmorrhages in the skin have been caused by hypnotic suggestion; ulcers on the mucous membrane of an artificial stomach have been directly observed to be due to anxiety and conflict (Wolff, quoted by Cobb); cardiospasm due to psychological stress has caused extreme dilatation of the œsophagus above it, with erosions of the mucous membrane; hysterical paralysis has ended in atrophy and fibrosis; thyrotoxicosis and Raynaud's disease, in hereditarily vulnerable individuals, have been ushered in dramatically by emotional turmoil. Cannon long ago proved by experiment that rage and fear brought about wholesale stimulation of the autonomic nervous system; Pavlov experimentally proved the connexion between emotional disturbances and conditioned responses.

Much more could be written on the subject of psychosomatics, as understood in the sense described above, since it covers a large field in general medicine and surgery, but a fair proportion of it is still speculative and this has therefore not

been touched upon. Many accredited monographs and papers have now been published on the psychogenetics of physical disease by general physicians, psycho-analysts, dermatologists, psychiatrists, neurologists, and physiologists, and to these the reader is referred for further information.

CLASSIFICATION

It is by the completeness and logical structure of its classification that a science may be judged to have attained a degree of growth and evolution. We cannot as yet declare ourselves satisfied with any psychiatric classification in use at present, no more than we can boast of a scientific classification in general medicine. But they are deficiencies inherent in the youthfulness of these sciences and in our deficient knowledge of them.

A review of previous attempts at classifying psychiatric subjects is both illuminating and gives us a panoramic view of progress during the past century or so.

Some ninety years ago an over-simple division was effected by speaking of states of Mental Depression, of Mental Exaltation, and of Mental Weakness.

At the Congress of Paris in 1889 an advance was made by distinguishing between Mania, Melancholia, Circular Insanity, Progressive Systematized Insanity, Vesanic Dementia, Organic Dementia; Paralytic, Neurotic, Toxic, and Moral and Impulsive Insanities; and Idiocy. Hack Tuke's adopted nomenclature has three divisions: Protopathic, Deuteropathic, and Toxic Insanity, under which headings are placed such heterogeneous states as "thermatismal insanity", "uterine insanity", "pellagrous insanity", and so forth.

Clouston, in 1896, spoke very much of mental disease as was done some thirty years before him, except that he included states of relapse in mental disease, states of defective mental inhibition, a host of organic insanities—not omitting "insanity of masturbation"—puerperal and climacteric insanity. To these Bevan Lewis added insanity at the periods of puberty and adolescence.

Berkley, in 1901, recognized four main groups. The first group consisted of mental diseases without ascertainable

pathological alteration of the brain substance, and included the idiopathic insanities or psychoneuroses of Kraft-Ebing, "which it is customary to divide into melancholia and mania." The second group consisted of mental diseases sequential to ascertainable alteration of the cerebral substance ("denutrition of the cortical cells"), which in turn might be the result of febrile states, of chemical intoxications, of auto-infections, and so forth; to this third group belonged the insanities due to inherited or acquired mental instability ("warped evolution of the mental faculties"). Group four consisted of states of complete or incomplete retardation of the psychical and physical development (oligophrenia or amentia).

In his Lectures on Clinical Psychiatry (1906) Kraepelin described what is now known as schizophrenia under the provisional name of Dementia Præcox, and established a distinction, far reaching in its effects upon psychiatric research, between affective psychoses and those in which affective response, judged by outward appearances at any rate, seemed minimal or non-existent. The distinction was of the nature of a true discovery; his description of clinical material a masterpiece of observation and inference.

It is interesting to note that in 1911 de Fursac classified Kraepelin's dementia præcox under psychoses due to auto-intoxication; manic-depressive insanity and paranoia under psychoses based chiefly upon a morbid predisposition; epilepsy and hysteria under psychoses based upon neuroses; and obsessions under constitutional psychopathic conditions.

Certain points of interest stand out from these varying attempts at grouping diseases of the mind. Emotional deviations are given a prominent place throughout as melancholia and exultations, whereas the schizophrenic types are classed under "states of mental weakness" as dementia or apathetic dementia. Delusional states and the organic insanities appear much later in the nineteenth century, when the puerperium, the climacteric, and adolescence are also given a definite place in the psychiatric scheme. General paresis, epilepsy, and the psychoneuroses are treated as forms of insanity, without definite distinction, till the beginning of this century. Pathological brain changes and the question of heredity are made the

double basis of Berkley's classification, in which auto-infection and the mental faculties find a place. Some modern psychiatrists show a remarkable predilection for going back to precisely those fantasies which held sway half a century ago : nihilistic genetics, a diligent search for brain lesions, and the magic word auto-infection.

Of the recent classifications, that of the American Psychiatric Association is perhaps the most comprehensive and the longest ; it partakes more of an enumeration fitted into a slender logical structure. The main advantage of this enumeration is its all-inclusiveness. But in this very all-inclusiveness we see brought out our lack of knowledge in the direction of pathology and psychology ; a fact which, on reflection, constitutes a second advantage. We cannot yet afford to simplify psychiatric classification ; neither does it directly serve science to draw up pages of diagnostic names.

We have, therefore, endeavoured to compromise by giving our classification as follows, using Meyer's psychobiological conception of mental illness as a reaction of the total person to the stresses and strains of his inner and outer environments.

I. Psychopathic Personality.

II. Psychoneuroses :

1. Neurasthenia
2. Hypochondriasis
3. Hysteria
4. Obsessions
5. Anxiety states

III. Affective reaction types :

1. Manic-Depressive
2. Involutional melancholia

IV. Paranoid reaction types :

1. Paranoia
2. Paraphrenia
3. Dementia paranoides

V. Schizophrenic reaction types :

1. Simple
2. Catatonic
3. Hebephrenic

VI. Epileptic reaction types.

VII. Organic reaction types :

1. Acute delirium
2. Prolonged confusional states :
 - a. Toxæmias and infections : alcohol, opium, lead, gases, and others ; syphilis
 - b. Primary brain degenerations : senile and presenile psychotic reactions, and others
 - c. Metabolic deficiencies
 - d. Brain trauma and brain disease

VIII. Mental deficiency.

The above is obviously not an exhaustive classification, and the headings will be more particularized in the following chapters. At this stage it merely aims at giving a bird's-eye view of the subject. Dementia paranoides has been placed under paranoid reaction types, provisionally. For the last division, as has already been said, the reader is referred to text-books on Mental Deficiency.

Functional psychoses have also been classified according to : (a) Abnormal Personality mechanisms such as Suppression, Repression, Compensation, Regression, Dissociation ; (b) Libidinal Fixation, such as the Transference Neuroses, and the Narcissistic Psychoses which include Paranoiac, Manic-Depressive, and Schizophrenic reactions.

AETIOLOGY

The assignment of a cause of any disease constitutes the basis both of treatment and prevention. If we look upon a human being as a machine, rather more complex than other machines, and upon disease as a failure of some of its component parts to carry out their appointed tasks, we shall serve treatment badly, and prevention not at all. It is only by adopting the psychobiological viewpoint of health and disease that we shall eventually come upon the 'cause' of mental illness, and it may safely be prognosticated that this 'cause' will prove to be a multiplicity of tendencies, subtle in their origin, subtle in their evolution, and subtle in their first effects.

The reactions of a human being to his environment form the subject of the psychobiological approach, and this

introduces of necessity the consideration of three factors in the appraisal, treatment, and prevention of all psychiatric deviations: the individual, his environment, and his reactions. By environment we mean the total set of elements in which the individual moves, feels, and thinks, and it has therefore the attributes of both physiological and psychological processes. The labelling of a rise of temperature as fever, and the remembering of a past event as memory, belong to an age when faculties were the mode, and they shut the door on psychodynamic conceptions for much too long. We should now say that a rise in temperature might be an external sign, fairly accurately measurable, of the organism's reaction to the presence within it of microchemical changes.

A man's environment must therefore be studied from many angles, and will include chemistry, biology, psychology, bacteriology, physics, the place he works at, the house he lives in, the people he lives with, the people who influenced the formative years of his life, and so forth.

The man himself must be studied as a being of great complexity yet integrated, infinitely variable, possessing certain differential characteristics besides the more predictable ones belonging to all his fellow-beings, and whose adulthood is a reflection of his childhood, a sameness in a wealth of changes, a being accredited with continuity in time.

Without going into the philosophical implications of the word, we may say that causation implies a multiplicity of factors. Having discovered what we believe to be factors productive of illness in an individual, we still have to ask ourselves why he fell ill in the way and at the time he did. As a result of apparently identical circumstances one person will respond with an hysterical aphonia, another with a depressive stupor, the incubation period of the former being a matter of minutes, of the latter a question of days. The hysteric shows characteristics which will illuminate the query as to why he became aphonic; the stuporose patient in his turn will reveal personality traits indicative of manic-depressive tendencies; both may give a history of a pathological heritage and of home circumstances contributive to this form of illness; finally, both may be found, on analysis, to produce consciously or

unconsciously a personal reason or motive for being ill and possibly also for the particular choice of illness.

The theory of a plurality of causes should therefore be accepted. We should in all cases give consideration to heredity, the particular period of life, environment, occupation, sex, race, previous attacks, previous physical illnesses, pre-psychotic personality, and psychic traumata. The genetic-dynamic approach formulates the law that mental illness is the culmination of an evolutionary process going on through life, aided by adverse heredity and unpropitious environment.

a. Genetics.—The study of heredity and variation, which is still in its infancy as far as psychiatry is concerned, presents a problem of extraordinary intricacy. Inheritance of acquired characteristics certainly remains unproven. It should be noted that a distinction must be drawn between those characteristics which are induced, such as chemical or electrical injuries to germ plasm, and those which have come to affect it in the process of normal living. The former is functional, physiological, and eventually disappears: the latter becomes permanently the property of the species. Another complicating factor is the observation made by many workers that 'tainted' families have only a slightly higher percentage of declared mental illness than families that may be considered normal. More confusing still—what do we mean by characteristics? Are there such notions as absolute characteristics, pure, simple, and assignable to single genes? Almost certainly not (Huxley).

On the whole it may be said that dominant abnormalities undergo elimination by natural selection more rapidly than do recessive ones (Penrose). Schizophrenia as a dominant inheritance, instead of a recessive one, shows nevertheless a larger proportion of victims amongst the children of schizophrenics than amongst their siblings. It has, in fact, been proved statistically that two-thirds of schizophrenic matings may be expected to yield schizophrenic children (Schulz). Where the matings were schizophrenic on both sides 50 per cent of the children became psychotic, and of these 30 per cent presented the schizophrenic syndrome.

Recent workers have found that the frequency of manic-depressive psychoses amongst descendants of manic-depressive

matings was no greater than in the general population. Is the hereditary factor in this psychosis then of minor or no importance? Others give an expectation frequency of 24 per cent for the children of manic-depressives, and of 3 per cent for their grandchildren.

Of the organic psychoses workers on genetics can tell us very little. Alzheimer's disease is said to have a dominant mode of inheritance; so has Huntington's chorea and Pick's disease.

As far as epilepsy is concerned it has been found that an abnormal electro-encephalogram is inherited as a simple dominant, and that epilepsy, whether symptomatic or idiopathic, does not, presumably, occur in the absence of such cerebral dysrhythmia.

The genetics of psychopathic personality cannot profitably be discussed, since the investigators are clearly not agreed either as to its definition or even its symptomatic description.

From this short survey we must conclude that the problem of heredity in mental illness is far from solved, and that, because of the difficulties inherent in the subject, we cannot expect rigid formulation for many years to come. The main drawbacks to statistics of the past generation are vagueness of classification and the inclusion amongst mental deviations of a multiplicity of indefinite syndromes, loosely referred to as 'tainting'. To refer to tainting as occurring in 80 per cent of manic-depressive families, or in 80 per cent of epileptic families, means very little and tends to obscure biologic research. It savours too much of the days of faculties and stigmata of degeneration, as if these were basic and ultimate factors resident in unitary genes. It is for this reason that Mendelian laws, true though they might be in the biologic sciences, possess an insidious danger value when applied to our as yet amorphous psychiatric material where neuropathy, nervousness, nervous disease, and so on, are accredited with measurable qualities which in fact they do not possess.

Therefore the laws of genetics should be left to geneticists to establish. Psychiatrists should concentrate on the dissection into components of those qualities of human thinking, feeling, and behaviour, normal and abnormal, which are at present to

be considered composite and complex. The careful observation, description, and cataloguing of symptoms are an absolute necessity for diagnostic and classificatory purposes. But for genetics we shall need to know, not the macroscopic elements of a syndrome, but its microscopic structure. Thus, equanimity in the face of difficulties, cheerfulness in the face of disaster, optimism in the midst of calamities, persistent hypomania, acute mania, exultation, elation, might well be grades along an intensifying scale, any or all of which should be looked for amongst ascendants and collaterals of a fully-developed case of recurrent mania. It is the physiological, not the pathological, that will bring us closer to genetic units. To discover half a dozen cheerful personages amongst the heritage of a manic patient may prove, ultimately, of more value to our understanding of genetics than the discovery of the same number of manics.

But here a difficulty arises. What are we to say of manic-depressive parents whose offspring develops a schizophrenic illness? That is to say, are we after all to assign disease-syndromes to unit characters, transmissible according to Mendelian laws of dominance and segregation? This would certainly explain dissimilar heredity more plausibly. On the other hand, it is conceivable (indeed, more likely) that our conceptions of mental disease-complexes are still too rigid; that our ideas of the various clinical pictures still lack the subtlety of finer distinctions and finer similarities. On the whole, however, mental disorders tend to breed true to type; especially do we find clinical similarity amongst siblings. Two problems of interest to the geneticist are the high familial incidence of manic-depressive psychosis, and the frequently dissimilar inheritance in schizophrenia. It would seem that the characteristics of mental excitability and of mental depression possess a greater ease of transmission and a greater capacity for spreading, and for spreading in pure form, moreover; and that this does not apply to the characteristic of schizophrenic withdrawal from external reality.

We must look to psycho-analysis for dissection of symptoms into their simpler components. Until this is accomplished we cannot hope to apply the laws of genetics to the study of

psychiatric inheritance. We may then find, too, that environment exerts at least as great an influence on the production of mental disease as does heredity. A child brought up in an atmosphere where emotional exuberance, for instance, is never encouraged may find schizoid or depressive reactions handy tools wherewith to fight life's battles. The principle of introjection of environmental precept and example constitutes as powerful a character-shaping agent as does the inheritance of abnormal tendencies, and the two factors must be given at least equal consideration.

b. Other Aetiological Factors.—Such a multiplicity of factors have been included under this heading by various writers on this subject that it is hard to see the wood for trees. Thus, *alcoholism* as a progenitor of mental illness is frequently accorded an important place, especially by psychiatric writers of the past generation. There is such scant evidence for the theory that the germ plasm may suffer injury by the chronic ingestion of alcohol that, for the present at any rate, we need not consider the point. Rather does clinical observation tend to show that addiction to alcohol is the expression of an underlying psychological abnormality, and that it is the latter which is heritable. Furthermore, the abnormality thus inherited may be, and often is, dissimilar, and may express itself as a psychosis, as feeble-mindedness, as a psychoneurosis, as epilepsy, and so on.

That the chronic drunkard frequently develops a psychosis or a psychoneurosis goes without saying, as it is equally true that many drunkards never show any other symptoms of mental instability but the symptoms of their addiction to alcohol. In all cases we should regard alcoholism by itself, not as a clinical entity in its own right, but as the outward sign of an inward disharmony, as a symbol of something else, or a complex symptom. The psychosomatic damage done by too much drinking expresses itself in the shape of certain organic psychoses, such as the Korsakow syndrome, delirium tremens, *mania a potu*, and others. It is probable that the percentage of admissions into mental hospitals of alcohol psychotics does not amount to more than 8. Not so many years ago this percentage was computed to be between 25 and 30. This

drop may be due to an absolute decrease in the number of addicts, though this alone does not account for it by any means. There are other factors which help to explain the decrease, such as the greater accuracy in diagnosis and definition, and a more balanced emotional attitude of physicians to the problem; also, we would suggest, initiation of psychotherapeutic measures in the stage of pre-chronicity.

Once again we are indebted to psycho-analytic research for a better understanding of the complexities of alcohol addiction. But we need to know a great deal more still. Will analysis, for instance, one day explain why some chronic drinkers develop cirrhosis of the liver whilst keeping their reasoning intact? Why some are stricken with peripheral neuritis and gross loss of memory? These, from the speculative point of view, are questions of far greater import than those other aspects of alcoholism which analysts have already largely elucidated, such as the drunkard's manic-depressive tendencies, his repressed homosexuality, his paranoid features, his proneness to use any kind of mental mechanism (dynamism) in his attempts to deal with reality.

Syphilis constitutes another important aetiological problem. Here, too, we must bear in mind that the disease is heritable and as such carries its own mental deviations; and that as an acquired disease it is responsible for mental diseases in many respects different from the inherited type. Mental deficiency is a frequent accompaniment of inherited syphilis; general paresis is the most frequent psychosis resulting from acquired neurosyphilis, and accounts for some 10 per cent of total admissions into mental hospitals. We do not yet know why some syphilitics develop psychoses and others do not. The same applies to mental disturbances due to lead or other metal poisoning, none of which is, however, of frequent occurrence.

Drugs such as opium, cocaine, the barbiturates, and others, account for a very small percentage of psychotics, though they present something of a problem outside the walls of mental hospitals. Often the drug addict is also an alcohol addict, frequently, too, a heavy smoker. But the changes wrought in the personality structure and the social value of the affected individual are profound. In his attempts to run away from

life as he finds it the addict sooner or later clashes with the laws of the land ; in his attempts to seek a nirvana of his own in drowsiness, in sleep, or in artificial elation he sets about the task of destroying his mental, moral, and ethical integrity. He is the social psychoneurotic, like the criminal, the pervert, the psychopathic personality ; sometimes, too, he develops a depressive, a schizophrenic, or a paranoid psychosis. The number of drug addicts is usually reckoned at less than 1 per cent of total admissions.

So-called *auto-intoxication* from the invasion of the bloodstream by metabolic end-products, and the consequent production of a psychosis, constitutes one of the most poorly substantiated theories in psychiatry. Such vagaries of the normal constituents of the bowels, and their ultimate anoxæmic effect on the brain, offer a hypothesis somehow at variance with true scientific principles, and the experimental evidence issuing from animal laboratories is eminently artificial.

General infections, on the other hand, sometimes produce psychotic reactions, a type of delirious or confusional, paranoid, or depressive reaction, depending, not upon the kind of infection, but upon the type of personality so infected. Here, too, we are at a loss to explain why some persons develop a delirium, or other psychotic symptom, with the slightest rise of temperature, whilst others are not so affected. The section on Psychosomatic Aspects (*see* p. 7) suggests an answer to this and other queries raised above. But even if such an answer be the true one we are still left with the question of choice of organ or of bodily system or of type of mental deviation, and it is here that the manifold chemical, physiological, physical, and biological researches will help the psychiatrist to unfold and clarify the psychosomatic enigma. It has been said that clinical impressionism counts for little. But it has also been said that without some intuition, without that element of sudden and unaccountable insight into the problem of causation, no discovery could ever have been possible. On this assumption we might, for instance, posit the existence of certain types of personality who develop a delirious reaction to infection, a Korsakow psychosis with alcohol or lead, a general paresis with syphilis, a depressive reaction to diabetes, and so forth.

The hypothesis would also help to explain the psychotic reactions which are said to be caused by *focal infection*—always assuming that focal infection and psychosis are justifiably related as cause and effect, an assumption which we are not prepared to make. The focal infection theory is responsible for the establishment of up-to-date operating theatres in mental hospitals (ousting the once popular colon lavage departments !), the keeping of vast records of surgical operations, and the incursion into psychiatry of many a surgeon. A septic focus in a psychotic patient should be eradicated ; hyperglycæmia in a psychotic must receive appropriate medical treatment ; in both cases we are concerned with the patient's physical and mental welfare ; in neither are we concerned with theoretical considerations. Those who claim formidable percentages of psychiatric cures from such procedures must be singularly fortunate. We have of late invoked the skill of a surgeon to open an empyemic cavity in a patient with delirium-like reactions and strong paranoid features. She made a good physical recovery, but her paranoid-delirioid state remained unaltered for many months. A depressive man, with anxiety and marked compulsive colouring, was discovered, on routine examination, to be a diabetic and suffering from a blocked antrum. Insulin therapy was promptly instituted and the antrum washed out periodically by an otolaryngologist. At present—that is, twelve months later—his mental state remains precisely as it was before treatment ; psychotherapy, be it added, has been steadily refused by his relatives. A girl suffering from schizophrenia simplex for twelve months underwent surgical operation for the removal of a pyosalpinx, without, however, any improvement in her mental condition. These cases are mentioned, not because of their singularity, but merely on the basis of recency. The coincidence of a septic focus with a psychosis has the appearance of a precipitant rather than of a cause.

Cerebral arteriosclerosis and *physical trauma* will be dealt with under their appropriate headings. Here, too, it will be seen that the pre-traumatic personality constitutes a major factor in the emergence of psychosis or psychoneurosis.

It would be wrong to say that *age* is a cause of mental illness.

As a pointer to diagnosis it is sometimes valuable, since some mental diseases appear to manifest themselves at certain periods of life only. Involutional melancholia, presbyophrenia, paranoid dementia, and senile dementia are characteristic in this respect. Physiological age must, however, not be overvaluated either in diagnosis or in treatment.

For some years now the question of *endocrine disturbances* as originators of mental illness has assumed major proportions, *pari passu* with advances made in that direction in physiological laboratories. Enterprise, enthusiasm, and the legitimate and laudatory desire to discover yet another possible cause for psychotic behaviour have, unfortunately, outrun the early hopes of endocrinologists. As yet there is no psychiatric illness wholly, or even mainly, assignable to endocrine disturbances or curable by endocrine therapy. Endocrine factors may influence psychic events, and vice versa, but it is not yet known to what extent each acts upon the other. In involutional melancholia, for instance, the pre-psychotic personality is of far greater importance causatively and prognostically than any coincident endocrine disturbance or calcium deficiency. Endocrine abnormalities are especially demonstrable in schizophrenia, but no specific endocrine disturbance can be linked up with any specific schizophrenic picture, nor can the latter be influenced in the direction of improvement by the exhibition of hormones, except in an infinitesimal number with abnormal nitrogen catabolism who improve under thyroid medication (Gjessing). Nor does gonadal treatment to any appreciable extent improve the mental state of schizophrenics, let alone effect a cure. Nothing is known of endocrine aetiology in the manic-depressive psychosis. Thyroidectomy does not relieve the incidental mental symptoms of thyrotoxicosis, a condition which is in fact uncommon, nor can we relate with any assurance the toxic state with the mental state in this condition.

We must conclude, then, that whilst it is fit and proper that we should investigate all the possible somatic accompaniments of mental disease, we are still not entitled to make a stand on the theory that they are causally related, though they are reciprocally influenced. Pre-clinically, physical disease is a hidden and unconscious process ; pre-clinically, mental disease

is also a hidden and unconscious process. We believe the latter to be ulterior to, or at least coincident with, the former, and, until the reverse should be proved, we hold to this hypothesis, albeit with the proviso that degenerative, inflammatory, or other destructive processes affecting brain tissue are causally related to consequent mental abnormalities.

A listed summary of aetiological factors relating to mental disease is herewith appended. It is not pretended that the list is complete. Moreover, recent and authenticated evidence alone is given.

Delirium reactions	Usually, but not always, associated with somatic illness
Manic-depressive psychosis	No causative physical findings. Depressions of later life are often associated with physical illness
Involucional melancholia	Pre-psychotic personality is of paramount importance. Endocrine causation unproven: endocrine therapy relieves some of the menopausal symptoms, leaving the severe psychotic state substantially unaltered
Schizophrenia	Biopsy findings in the testicles are not causally related to psychosis. Thyroid medication has benefited a small percentage of catatonics in whom nitrogen storage and its toxic effect were blamed
Paranoia	No physical findings
Pre-senile psychoses	Plaques and neurofibrillary changes in C.N.S. marked, constituting the aetiology of the psychosis
Senile psychoses	Degenerative changes in brain tissue coincident with, if not causal to, the psychic changes. Pre-morbid personality gives colouring to the symptoms
Cerebral arteriosclerosis	Many such cases never develop mental symptoms. The amount of brain damage and the severity of mental symptoms show marked discrepancies. A history of manic-depressive heredity and of the manic-depressive symptoms in the patient are frequent
General paresis	Invasion of the C.N.S. by the <i>Treponema pallidum</i> is the cause of this psychosis

Idiopathic epilepsy	No physical theory of any validity has so far been brought forward. Most probably a psychogenic disease, with inherited cerebral dysrhythmia
Psychoneuroses	No physical causes found
Alcohol addiction	No physical cause
Post-encephalitic symptoms	Perivascular changes in basal ganglia. Psychic alterations are a reaction to the physical disablement. The somatic pathology is not the cause of the mental symptoms
Huntington's chorea	Degenerative changes in the C.N.S. are the cause of this psychosis. Psychic symptoms are at first based on the pre-morbid personality; later on they merge into dementia
Pellagra	There are no specific changes in the C.N.S. Mild mental symptoms often appear before the physical signs are recognizable. Many chronic psychotics show pellagrinous signs. Psychotic symptoms are varied and variable. Deficiency in nicotinic acid is accounted a cause

It may therefore be stated that up to the present no proof exists for the theory that somatic changes are the cause of mental illness, except in a very few instances, and even in these the psychic phenomena are not invariably found to follow the physical pathology. General paralysis and its attendant mental deterioration, Pick's and Alzheimer's disease, and Huntington's chorea, stand out as mental syndromes caused by physical disease process. Attention is drawn to the fact that organic psychoses are only produced by a diffuse disturbance of the function of the cortex and not by local injury.

CHAPTER III

PSYCHIATRIC EXAMINATION

THE obvious and immediate object of a psychiatric examination would appear to be the making of a correct diagnosis : that is, to place the patient in a class of mental diseases, major or minor. The more remote object is to gather more and more facts about such diseases and thus help to build up a system of psychiatric knowledge. But to make a diagnosis is merely a beginning ; we must next study our patient, not merely as yet another representative of this or that psychiatric classification, but as a total human being set in a particular environment, and coming from a particular stock. When we speak of environment, or situation, we mean the physical state, the inner experiential state, and the temporo-spatial milieu and all that this involves. The formula, in short, becomes : Individual + Situation = Reaction. And without the ecological aspect, that is, without studying the person's adaptations to his environment, the study of psychiatry would be pointless and barren. Nor is the mere listing of symptoms sufficient ; we must get to know the evolution of those symptoms, and the type of individual in whom they first started, that is, the pre-morbid personality.

Many schemes have been drawn up as practical aids to examination, and most of these cover the whole range with sufficient completeness. But when we consider that practically the whole range of life enters into the making of a sick personality we shall understand that no scheme can ever be considered complete.

A plan much used in America consists of three main divisions. The first concerns the Individual : his physical state, intellect, habits, instinctual life, emotions, and heredity. The second deals with the Situation : toxic, organic, psychogenic factors, and environment. The third describes his particular Reaction

to the Situation : organic, toxic, paranoid, depressive reactions, and so forth. Finally, Recommendations are made and Results noted.

Although the following pages describe a set and ordered scheme it is seldom possible, or advisable, to adhere to it strictly. For instance, the patient's appearance and talk may be the first points to be noted, as also his reaction to the physician, and unless notes are made there and then opportunities may not offer themselves again later on. In fact, everything that strikes the examiner's eye should be noted at the first interview, whilst at the same time the patient is put at his ease with non-technical remarks and a tactful attitude. Remember that he is psychically ill, probably physically distressed, and that he finds himself in the disadvantageous predicament of being 'on show'. Even the dilapidated schizophrenic may exhibit, to the trained eye, differential behaviour before the physician and in the ward.

Relatives and friends should be interviewed with the object of obtaining the history of the patient's illness, and corroborative evidence as to his environment, his pre-morbid personality, his personal and family history. The evidence so obtained should be clearly marked on the examination sheets as coming from relative or friend, in order to distinguish this from the physician's own observations and the patient's own words, which latter in their turn should also be distinctively marked. If the physician considers the witness for some reason or another not altogether reliable the fact should be stated on the history sheet.

Symptoms should be described in dynamic and simple terms, and all technical language avoided, so that those who read the history months or years later may be given the opportunity of making up their own minds about the case. It is therefore best to place on record the patient's own words and to mark them as such. When we speak about dynamic terms we mean to imply that it is, for instance, better to say that the patient has forgotten that he arrived the day before and had porridge and a boiled egg this morning, than to state that his memory for recent events is defective. Nor is the bald statement that the patient is disorientated for time and place as

effective or descriptive as saying that he did not know the time of day or where he was.

Although a scheme forms a useful scaffolding upon which to build a history and description of the patient, no scheme could be complete since it would need to cover all possible human activities, thoughts, and emotions, and this would render it ponderous, unwieldy, and not useful. Much, therefore, of the examination must be carried out as the moment prompts. Thus it is always advisable to let the patient talk and volunteer his information when he feels like doing so. It is safe to say that when a patient shows willingness to talk about himself he will reveal more intimate and significant history than any clinical plan could hope to do. Later on the plan will help to fill in the gaps and to give further suggestions for the patient to enlarge upon. But whatever scheme one uses it is best to begin by describing the patient as he appears to the examiner at the first meeting, both as to his physical appearance and mobility, adding any peculiarity of a striking nature; the whole sketch need not amount to more than a hundred words, and can be put on paper immediately after the first interview.

EXAMINATION OF PATIENT

1. **Descriptive Sketch.**—As an example the following is given: "A man of medium height, slovenly dressed, with greying hairs, injected eyelids, a rather bloated face and red nose. He refuses to sit down; he paces the room in an aimless way, picks up articles on tables and mantelpieces, and puts them down again without showing any interest. 'I don't care what you think or say. There is nothing the matter with me.' He picks up a gramophone record and carefully lets it drop on the floor, looking for a moment at the broken pieces in a stupid unsurprised manner. His speech is dry, unemotional, inconsequential, and he appears detached from the business in hand."

2. **Attitude.**—E.g., erect, slouching, bent; submissive, aggressive; confident, afraid.

3. **Behaviour.**—E.g., he may appear free or constrained in his movements; the latter may be repetitive; he may look

depressed or elated, anxious or calm ; he may talk incessantly or sink into a stupor ; he may show suspicion in actions and words ; restless or listless.

4. **Mental Activity.**—A few everyday questions will help to bring out the question of speed and appropriateness of mental activity ; of flight of ideas or of mutism ; of suspicion, inattention, or complete absence of interest ; of clear understanding or confused thinking ; of slowness in thought production or thought expression ; of complete speech dilapidation, with echolalia, perseveration, verbigeration, and the formation of neologisms.

5. **Mood or Affect.**—By now much will have been gathered relating to the patient's emotional state, especially as to the presence of either depression or elation when these appear in clear and declared form. Anxiety may be expressed by motility, such as trembling, hand movements, and general restlessness ; by wide-open eyes and dilatation of pupils ; by speech, such as verbal expressions of fear, or by stammering. There may be cheerfulness and calm ; despondency, quiet depression, agitated depression ; stilted humour ; explosive temper, sudden facile emotionalism.

6. **Thought Content.**—As a rule thought content will be expressed without much coaxing as soon as a friendly and trustful rapport has been established between physician and patient. Conversely, the latter may be extremely suspicious and on his guard about divulging his closest inner thoughts and feelings, and in such cases prompting by more or less indirect questions will be necessary. There are certain well-established and frequently recurring thought-subjects amongst the mentally ill, and these can be suggested by suitable paraphrase. A woman who thought that there was a plot afoot in her street to make her pregnant by means of telephonic influences could not be made to divulge her secret until she was asked who her best and intimate friend was. From here onwards her delusions began to tumble out like a cataract. The hearing of voices is as a rule not so difficult to elicit, except at their first occurrences. A question about buzzing in the ears or noises in the head often introduces the topic harmlessly and successfully. If auditory hallucinations are

admitted their degree of reality to the patient should be inquired into ; he may possess some insight, or none at all, into his condition ; he may be fully aware of their occurrence and ready to explain them away in accordance with an inner scheme of his own. Obsessions and compulsions are as a rule more difficult to obtain, as they appear as senseless and useless to the patient as they do to the examiner, and a certain amount of guilt and shame attaches to them. The subject can often be successfully introduced by inquiring as to the presence of doubts, of uncertainties in daily life, of counting and repeating, of touching objects. Even so it may take much observation, much tact, and much confidence before the whole obsessional symptomatology is exposed.

7. **Sensorium.**—

a. Orientation.—The time of day, the day of the week, the month, the year—these will naturally suggest themselves. The place, the kind of place ; the purpose of the patient's presence ; the occupation of the examiner and of the nurse—are further questions which will bring out the intactness or otherwise of the patient's state of orientation. He may remark that the passage of time appears strange to him.

b. Memory.—An account is given under SYMPTOMATOLOGY (Chapter IV) of the meaning and implications of the function of remembering and the phenomena of forgetting. Here we need only allude to the methods of testing memory. Thus, if a patient is unable to give a connected account of the main events of his life, that is, of the usual landmarks, further tests are called for. On the other hand, gaps may appear in his account, and these may have emotional significance. Recent events, names and places, should be asked for ; his place of work, his address, the march of his present illness, what he was doing yesterday, and so forth. Recent memory of something entirely new to him may be tested by giving him a name or number and five or ten minutes later asking him to repeat the information. It should be pointed out that during the testing the patient may be too preoccupied or too distracted to grasp even the questions put to him, and we should note the fact ; where there is no registration there can be no retention. Note also his attitude towards his defects ; he may

be fully aware of them, or completely unconcerned, or without realization at all.

c. Attention.—As we remarked above, a patient may be so distracted by his inner life, or by his delusional or hallucinatory or obsessional thoughts, as to be quite detached from the realities of the moment; he may wander from one object in the room to another; or he may refuse to listen; or unable to hold to one subject for any length of time; or utterly disinterested. In such cases frequent short sittings, and frequent observation by residents and nurses, may be the only means at the disposal of the investigator.

d. Calculation.—Subtraction of serial sevens from 100 (93, 86, 79, 72, etc.) is a fair test; answers should be taken down, as also time taken. Simple additions and multiplications may also be given, care being taken to remain within the limits of the patient's educational abilities.

e. General Information.—This, too, must be appropriate to all the circumstances of education, upbringing, place of abode. The following questions are convenient: Who is the present king, his immediate predecessors, the Prime Minister, and some notorious or famous character of the times; six large cities in England or Scotland. These, as also a short reading and writing test, are not so much an intelligence assessment as an index of any falling off in the general level of intellectual grasp and activity. For this purpose, too, one may ask the patient to read aloud a short story (80-100 words), then to repeat it in his own words and to give the meaning or point of the story. In doubtful cases intelligence tests proper may have to be used, as for ascertaining the presence of mental deficiency. So far we shall have had an opportunity of judging of the intelligence of our patient in a general way: as to whether he is brilliant or average, observant or dreamy, fatiguable or persevering, clear-headed or muddled, original or commonplace, and so on. Perhaps special abilities and talents will have been discovered.

f. Judgment.—This relates to the manifold happenings of importance from such points of view as politics, ethics, morals, religion, economics. Healthy judgment on these subjects as measured by the consensus of opinion amongst one's

fellow-beings, constitutes a satisfactory answer, a fair amount of latitude being allowed.

g. Insight.—The patient may be utterly unaware that he is mentally ill; he may be willing to admit that he might be wrong in his strange beliefs, or that his hallucinations might be the product of his imagination; on the other hand, he may fully realize that he is mentally ill and in need of treatment. Again, it often happens that his judgment on general subjects is perfectly sound, but in his delusional system he remains fixed in his conviction that he is right and everyone around him wrong.

By the time the above information has been gathered some sort of friendly and intimate rapport will have been established between physician and patient. When this is the case a separate sitting should be arranged at which some of the following points should be cleared up.

8. Instinctual Life.—Time of development and/or extinction of sexual impulse; is there any looseness or inhibition, prudery or cynicism? *ejaculatio præcox*, frigidity; fetishism, strong tendencies towards masturbation; prostitution; impotence; is there any homosexuality, exhibitionism, or infantilism? Inquire as to masochism or sadism, primitive brutality, or cruelty to animals, fantasies of crime, of lust-murder, of incest, of bestiality.

Has he a strong will-to-power, resentment, ambition? Is he aggressive, placid, anxious, sly, deceptive, prudent? Has he any strong cravings for drink, food, tobacco, drugs; or no wants of any sort? What is his attitude towards parents; towards pain; towards death?

At a subsequent sitting we should inquire into the family and personal history, and into the genesis and march of the present illness. Here we do well to interview relatives and friends for corroborative evidence of the patient's statements. Even so, any outside information must always be carefully sifted and handled. The informant should always be described as either reliable or not reliable, depending on the examiner's estimate of him. With regard to this point it must be remembered that evidence may be vitiated by many factors, some conscious, but most of them unconscious. Memory, for instance, may prove to be far from photographic, and gaps

may be filled in according to the informant's preconceptions about physical or mental illness ; such as fits, faints, " weak as a kitten ", " a funny look in his eyes ", talking silly, and so on. Further, he may show bias for or against the patient ; or the latter may possess some subjective interest in perverting the facts, such as claims to compensation or a domestic victory. All informants, including the patient himself, should be interviewed separately, and the source of the information clearly indicated ; any discrepancies or disagreements should be specially annotated. Perhaps one of the most frequent kinds of misinformation is the understatement on the part of a near and dear relative, or overstatement on the part of a relative or friend who is anxious to get the patient admitted at all costs.

9. **Family History.**—This should go back as far as possible and include collaterals. Here, above all, there is need for circumspection and for great care in accepting descriptions of characters long dead ; much of this evidence may in fact be of the hearsay variety. Such points as the social status, personality of parents and of siblings should be inquired into ; also, home atmosphere and its influence on the patient, and the latter's emotional relationship to his home. Familial diseases, alcoholism, mental disorder, odd personalities, health of parents and siblings, and causes of death should figure in the family history ; also the number of siblings, in chronological order, with their Christian names, ages, marital condition, occupation, personality, illnesses.

10. **Personal History.**—Under this heading we include the date and place of birth, with information relating to the mother's condition during pregnancy ; whether full term, normal delivery, breast or bottle fed ; precocious or retarded development, with such landmarks as time of teething, walking, talking ; strictness or laxity in relation to excretory functions.

Childhood play ; happiness or unhappiness ; such occurrences as sleep-walking, temper outbursts, fear states ; other nervous traits such as bed-wetting, nail-biting, night terrors, thumb-sucking ; strong dislikes for certain kinds of food, lack of interest in meal-times, difficulties with eating in general ; stammering. School activities, with age and stand-

reached on finishing. The various types of occupation, posts held, salaries attained.

Menstrual and marital history ; this will also serve as an introduction to the sexual history, with an account of forms of coitus, masturbation ; sexual peculiarities, fetishism, homosexuality. Number of children, their names and ages. Habits relating to alcohol, drugs and medicines of any kind whatsoever, tobacco.

A full list of diseases, both mental and physical, of surgical operations, of accidents leading to physical damage, and of hospitalizations.

11. History of Present Illness.—The inquiry into the evolution of a mental illness needs tact, insight, and patience. Above all, we need the capacity to evaluate such changes in behaviour as might be socially not unacceptable but psychiatrically significant. It is here too that we shall encounter the workings in our informant of unconscious bias for or against the patient. We must inquire into changes of mood and changes in the affective attitude towards friends and relations ; expression of peculiar ideas ; falling off in memory and intellectual activities ; alterations in appetite, sleep, and established habits ; suicidal or homicidal threats ; changes in the excretory habits ; the establishment of unusual habits, signs of impatience and irritability, lying, thieving ; fears of all kinds ; expression of jealousy or of suspicion, or of hearing voices. This list can be enlarged by referring to the chapter on symptomatology.

12. Pre-morbid Personality.—Mental disease is largely a personality efflorescence run riot. Much time and energy have been expended on segregation and classification of types of personality, and the number of such lists has become too large and varied to be used in a mental examination such as this. It may be significant to note that, whereas the number of instincts has been reduced to two or three, the number of personality types has steadily increased. Amongst those in whom some mental breakdown may be said to constitute an almost permanent danger we might distinguish the Cyclothymes, Schizoids, Hysterics, Self-uncertain (obsessions and doubts), Depressives (depression with paranoia), Emotionally

Labile (epileptoids), and the Explosives (Scheider). Kretschmer would classify these under the temperaments. A shorter, and more practical, classification distinguishes types into the Intellectually Active, the Physically Active, the Self-interested, the Reality Seekers. At the same time it must be emphasized that numberless permutations and combinations of types exist and that personality, as above classified, in pure culture would be hard to find. Most so-called personality tests are concerned with the discovery of certain traits, and these in themselves do not make the personality as we deal with it in psychiatry. The meaning of the word personality in psychiatric disease concerns more closely that aspect of the individual known to his relatives and friends, and it therefore includes far more than clusters of traits. The testing of personality in this sense consists in discovering how the individual has reacted to life's situations, both standard and unusual, with the material of his heredity and environment. This is best done by placing the medical data, year by year, alongside the social data in two vertical columns. A parallel longitudinal section of this kind will help to crystallize out the psychiatric type with which we are dealing, as well as give us a rapid and clear view of important historical events in the patient's life; these should then be particularized separately, if not already covered by the examination as set out in the previous paragraphs.

It will usually be found best to allow the patient to talk about himself as ideas and recollections occur to him, and not to interrupt him too frequently in his narrative. This account can afterwards be split up into the different groupings as already described. The freely flowing account may be considered psychologically more valuable than the answers to an ordered and stereotyped list of questionings, and its somewhat amorphous form may be given shape after the interviews. It need hardly be added that with some types of mental illness we may be quite unable to get any sort of history from the patient at all, and in such cases we must rest content with describing observed facts and quoting strange sayings verbatim, leaving the logical order of the patient's history to be obtained from friends and relatives, in his absence.

No words can describe the subtleties resorted to by the mind, conscious or unconscious; and no plan, however exhaustive, will faithfully translate or bring these out. The three factors of great importance here are the type of mental illness incapacitating the patient's thinking, the personality and skill of the examiner, and the degree of positive transference from one to the other.

CHAPTER IV

SYMPTOMS OF MENTAL DISEASE

THE activities of the human psyche may be said to rest upon the triad Acting, Thinking, and Feeling ; and quite commonly these three are present together, differing from each other quantitatively and qualitatively according to the particular pre-occupation submitted to attention and the psychobiological state of the person concerned. In a comprehensive way we speak of Acting as behaviour, and of Feeling as affect, thereby ruling out the possibility of equating feeling with sensation, whereas under Thinking we shall place those activities which may conveniently be called intellectual, such as controlled associative thinking, remembering, recalling, recognizing, reasoning, and judging. We shall not, however, adhere too strictly to the triad, but merely use it as a convenient foundation. Moreover, we shall here consider symptoms merely as symptoms and treat these as if they were isolated manifestations, bearing in mind all the time that, as in general medical symptomatology, an isolated symptom is scarcely ever found and should always be evaluated in relation to the totality of the personality under investigation and in the setting in which it originated.

Finally, symptoms must be regarded as the outward, fragmentary indicators of an inward disturbance ; no mental symptom ever comes like a bolt from the blue, but always arrives as a compromise formation to a conflict raging, usually, between the conscious and non-conscious streams of psychic life. Neither are symptoms ever meaningless, but rather symbolic and cryptic outward signs of hidden and deep-seated trends and urges, which may in fact dominate and swamp the conscious personality.

Behaviour.—The range of meaning of the term behaviour with reference to psychological medicine is so wide that too fine a definition of it cannot be laid down. We might say

that it is the exteriorization, visible and audible, of inner dynamic forces of whose presence the actor may, or may not, be aware. The term will thus include the batting of an eyelid, the ramblings of a person in delirium, the stereotyped movements of the schizophrenic, the blushing of an adolescent, the death trance of the hysteric, the immobility of the depressive. We therefore include in our description the isolated, the periodic, the more or less habitual, the expected, and the unexpected types of behaviour. But for psychiatric purposes we shall of necessity confine ourselves to the more unusual types. In his *Psychopathology of Everyday Life* Freud has given us an insightful exposé of the most ordinary fragments of behaviour, which he calls Symptomatic Acts, with an analysis of their underlying motives. The influence of this work will from time to time become apparent in these pages.

When, as psychiatrists, we are confronted with a person upon whose behaviour we are asked to pronounce a diagnostic verdict, we must keep in mind the enlightened present-day view that a human being is an integrated whole and not an aggregate of isolated faculties and dispositions. It is on this foundation that we base the view that every detail of such a person's appearance and behaviour will count in the final balancing up: his face, his posture, his gestures, his expression, his talk, his build, the pattern of his past behaviour, and all the other details that go to make up the individual as he appears to the outside world. The good clinician approaches his patient with an unbiased mind, scorns a spot diagnosis, and remains humbly observant of humble details. He walks in the vanguard of scientific advancement.

The symptomatology of mental disease will be considered under the following headings: (A) Psychomotor symptoms; (B) Disorders of Speech and Thought; (C) Disorders of Memory; (D) Disorders of Perception; (E) Consciousness and its Disorders; (F) Disorders of Affect.

A. PSYCHOMOTOR SYMPTOMS

Immobility.—This and the following modes of behaviour are primitive reactions in the phylogenetic scale; it occurs as

an expression of sadness or depression, as a death fantasy in hysteria, or a cataleptic phenomenon in catatonic schizophrenia. Postencephalitic Parkinsonism, and the Parkinsonian syndrome generally, bear some superficial resemblance to this condition ; but neo-pallidal pathology in psychiatric states still awaits proof. It is also seen, incidentally, in some states of terror, as an epileptic equivalent, a post-epileptic phenomenon, and under hypnosis. The condition known as *stupor* presents the most perfect picture of complete absence of motility.

Mutism.—This is the speech counterpart of the former, and is seen in depressive and schizophrenic states ; hysterics also favour this mode of 'expression'.

Negativism.—With this condition are associated mutism, refusal of food, and refusal to carry out requests, a tendency to perform the opposite of the action suggested, and positive resistance to efforts to care for the patient. In hysteria it is not usually so profound or so prolonged as in catatonia ; in depressive states it is usually present in an attenuated form as restiveness, the antagonistic muscle groups going into action in preference to those stimulated.

Suggestibility.—This phenomenon, present to some degree in all human beings (and also in the higher animals), is the contrast-equivalent of negativism. It may, indeed, be said that when negativism is exhibited there shall we also find a high degree of suggestibility. Where the latter component of psychic life is strongly present motivated will and action may become completely submerged, and automatic obedience, and *flexibilitas cerea*, take their place, the former on a somewhat higher intellectual level, the latter as a purely neuromuscular imposition. Under this heading we also classify *echolalia* and *echopraxia*.

Stereotypy.—An expressional process which (like *verbigeration*) also ranks low in the phylogenetic scale ; it belongs to a class of motor patterns known as rhythmical movements. Stereotypy is the quasi-involuntary repetition of a movement, or of words, initiated either by the subject or suggested by an outside agency. Rhythmic movements are met with in schizophrenia, involutional melancholia, some cases of hysterical twilight state, acute anxiety states, fatigue, and boredom.

Perseveration.—Consists in the continuance, against the subject's will, of a previous act or word, and in spite of the subject's desire to initiate some new activity. It is particularly met with in cerebrovascular conditions.

Mannerisms.—These we might look upon as stereotypes called into action by the psyche in certain circumstances, but which may become habitual, in which case they become more closely allied to tics and spasms. A mannerism has symbolic meaning and possesses an affective value; it is frequently invoked, not fully volitionally, by the individual in moments of stress. It is probable that tics and certain isolated clonic contractions are residues of movements which at one time possessed affective value for the individual but which have become, through passage of time and from excessive use, devoid of affective tone and are now automatically called forth in the absence even of an adequate stimulus.

Automatisms.—These can really be said to include many of the former types of psychomotility; their common denominator consists in an almost entire absence of volition in their initiation. Of this order are established habits and the many short-cut acts of daily life, without which socialized existence would become well-nigh impossible. Under this heading also we may speak of automatic writing, sleep-walking, and fugues, although here the concept of "dissociation" presents the more important underlying mechanism.

Compulsive Phenomena.—As in clinical psychiatry compulsions and obsessions form a pathological entity, they will be considered under the heading of the Psychoneuroses. It may be said here that deep psychic mechanisms are involved and that the manifest compulsive acts, or thoughts, or fears, hide a latent meaning (symbolism) of strong affective value to the individual.

Hypermotility.—Having excluded hyperkinesis due to striatal lesions (choreo-athetosis) we may proceed to consider the psychiatric implication of excessive motility. The outstanding characteristic of such over-activity is the absence of any directive object or purpose, with the result that no task is brought to a conclusion and that the patient is continually changing one task for another. Hypermania furnishes the

perfect example of this symptom, with which talkativeness or pressure of speech is usually associated. A form of restlessness met with in Alzheimer's disease takes the form of occupational over-activity; whereas the restlessness of the involuntal melancholic is more of the nature of stereotypy in speech and action.

Hypomotility.—Also known as psychomotor retardation, this symptom is exhibited in cases of neo-pallidal disease as well as in psychiatric syndromes. In the latter we usually find a concomitant slowing down of thought and speech, proceeding in some cases to mutism and immobility; the patient is slow in starting and slow in executing an intended activity. Although speech has its motor as well as its intellectual aspects, it will nevertheless be more convenient to consider its investigation under the general heading of intellectual processes. Some of the motor aspects have already been mentioned: mutism, pressure of talk, retardation, stereotypy, perseveration. We shall therefore proceed to refer to thought processes and the more important disturbances of verbal expression.

B. DISORDERS OF SPEECH AND THOUGHT

By means of speech we are able to communicate to others the content of our thoughts; moreover, speech is the only medium we possess for abstract representation. The two subjects may therefore with advantage be bracketed together, speech being the form and its contents being the thought expressed.

Volubility.—Speech may be increased quantitatively, whilst still under the directive influence or guidance of some dominant thought, and cast in logical form. Such talking takes place on the level of full awareness and is in keeping with the reality of the moment.

Flight of Ideas.—Here we no longer have a unitary stream under a single directive influence, but rather a rapid digression from one idea to another, the link between any two ideas being furnished by simple laws of association, which are frequently no more than sound-associations. No unifying thread is to be found in this type of speech, no order, no

sequence, but rather the semblance of that type of free association used in the psycho-analytic method; with flight of ideas, however, the rush of words and sentences is greatly accelerated and their content is frequently borrowed from nearby objects or sounds (distractability). The manic patient has such a wealth of disconnected and banal thoughts fighting for expression that he may truly be said to be labouring under pressure of thought-imagery. It should also be added that Free Association terminates in a picture which possesses concreteness and the qualities of actuality; whereas in flight of ideas we end up with the impression of a succession of incoherent images fantastically serialized and piled up in reckless confusion.

Circumstantiality.—The main characteristic of this kind of narration is an ever widening digressiveness; the narrator works his way from the centre to the periphery, then all round the periphery, and finally back to the centre. His progress is fairly ordered, each new element forming the starting-point for a fresh diversion and an additional triviality; the end-result is the one we had long ago guessed but which we had almost lost sight of in a mass of redundancies. It would almost seem as if persons afflicted with this mode of expression were unable to distinguish the pertinent from the non-pertinent, and often reality from fantasy. Epileptics and the simple-minded belong to this category.

Retardation.—Both initiation and progression of thought and speech may be slowed down, and this is usually the case during the depressive stage of manic-depressive psychosis, the slowing down sometimes reaching the condition of mutism, as is found in both depressive and schizophrenic states. Retardation should not be looked upon as merely lack of speed in speech, but rather as slowness of thought processes; and this in turn may be due to bankruptcy of thoughts or to the fact that the patient is too occupied with his inner reality to take anything but a fleeting interest in outside stimuli.

Blocking.—It sometimes happens that a patient quite suddenly stops talking, perhaps in the middle of a sentence or of a word, as if something within him were interfering with the continuation of the original flow of talk. This blocking

of the flow of thought is familiar enough with normal people and may be referred to as the mechanism of 'second thoughts', that is, the sudden irruption of a 'reconsidered' opinion. In all cases we shall, on closer investigation, discover the presence of a hidden motive or stream of thought in conflict with the manifest conversation. Such a hidden interfering activity is frequently of the nature of an affect-laden complex, and it is met with typically in schizophrenics. In these patients, too, we often find the mechanism of perseveration, which may be said to serve the same purpose—that is, the purpose of manifestly appearing to carry on the conversation by repeating the last phrase over and over again without relation to the next question or topic. In certain cases of catatonia, of agnosia, and of epileptic dementia the patient repeats a certain word or phrase numberless times during the day; this, however, is not perseveration but rather repetitiveness or stereotypy of speech.

Incoherence.—When thought is so disordered that no logical connexion exists between one idea and the next, and when the whole sentence resembles a string of juxtaposed words unrelated to one another, we call speech incoherent or disconnected. It is probable that each word in such a jumble is related to a complex, and that some meaning, perhaps completely devoid of affective tone through the passage of time, is nevertheless still attached to it by the patient, who is in most cases a schizophrenic. The term irrelevance is sometimes used to denote an answer which is not pertinent to the question.

Neologisms.—When two or more words are condensed into one we speak of a neologism, or a portmanteau word. They are complex-determined, and sometimes occur in dreams of normal people.

The foregoing symptoms refer in the main to the production or formation of thought. We must now consider those which show themselves in the content of thought, although the two aspects overlap and are not strictly separable in the domain of psychopathology. Indeed, no pronouncement could be made on disorder of thought except by inference from the patient's talk and behaviour.

Delusions.—Because of the wide field and complex nature of the terms of reference it is impossible to define the word 'delusion' unless in the first place we restrict our court of judgment to what we might term the majority of our fellow-beings as existing within our present circle of civilization. Secondly, if before such a court of judgment an unusual assumption, say of power or importance, appears to call for further investigation and temporarily to make us suspend our judgment upon it, we should attach due importance to such inconsistencies within the field of the delusion itself as may emerge on closer inquiry. If a thirty-year-old bus conductor tells us that he has been sent into this world to save mankind we have some reason to doubt his assertion. If, on being further questioned he tells us that he means to carry out his mission by establishing a world-wide system of electromagnetic fields of influence, we shall be entitled to call his belief a delusion.

When we consider the psychopathology of delusions, however, we find that the above difficulties and restrictions are dialectic rather than practical. A delusion arises, not from the social milieu, but from an endogenous or inward reality.

The psychotic has become aware of things that are hidden to his milieu, and these cannot, therefore, ever become part of the milieu, part of the herd-beliefs; he cannot successfully unload his inward experiences on to his fellow-beings; he is unable to feel himself into others' 'experiences' (empathy), unable to identify himself with those around him. We ourselves feel towards the deluded person uneasy in our minds; we feel different and impotent, because we are ignorant of the terms of reference which he has established in his inward self and before which his strange belief obviously passes muster.

We may state, then, that unconscious processes constitute the main factor in the production of delusions, and especially those processes which have suffered repression. Moreover, this repressed material is heavily charged with affect, and because of this it possesses a dynamic force to which the conscious personality has at last capitulated: the beginning

of a delusion is born. In the case of the paranoiac there will now arise the necessity of proving, first to himself, later on to the world outside, that this new arrival into his awareness has a right to be accepted as legal tender in the realm of logical thought. By the method of large-scale misinterpretations of reality he then sets out to endow his newly-acquired belief with all the legitimacy which at one time he attached only to properly constituted reality thinking.

We now see that a delusion has an affective basis in the unconscious, and that it is kept alive and active in consciousness with the help of intellectual, quasi-logical falsifications and denials of facts. Any sort of critical judgment will later on become submerged beneath the weight of affective and instinctive demands, frustrated urges, psychobiological shortcomings, feelings of guilt and of general inadequacy. The delusion is called upon to satisfy any or all of these demands and henceforth it fills the individual's whole life. No appeal to reason will have any success in disintegrating such established delusions, because an appeal to reason cannot reach the unconscious root of the delusion. Until the latter is well established, however, the patient may show a varying amount of insight, as by admitting the possibility of his holding a mistaken belief or by allowing outside criticism thereof. Clearly, the concepts Insight and Delusion are mutually exclusive, full insight entailing complete dissolution of the erroneous belief.

In some cases the delusion consists of a complete system, logically framed and apparently safe against counterproof except for the utter inacceptability to sane observers of its first and fundamental premiss. In other cases the delusions are multiple, unrelated to one another, and may vary from day to day; they usually spell disintegration, actual or impending, of the personality.

Delusions have been classified according to the conscious utterances of their holders; thus we get delusions of grandeur, of persecution, of physical disease (hypochondria), of guilt, of unworthiness, of nihilism, of poverty. Such names should, however, merely be regarded as short and convenient labels. In all cases we must search for the unconscious drives or needs

of which the utterance is merely an outward, masked sign ; in so doing we shall establish categories of delusions based on psychopathology and obtain a clearer understanding of the disease process threatening the patient's personality.

Depersonalization and Unreality.—A patient sometimes complains that nothing to him seems real, not even his own body or his very existence. Common everyday objects, time and places, no longer impinge upon his awareness with their customary intimacy, and he comes to doubt, rather vaguely, of their existence, their usefulness, their full reality-implications. Such feelings are distressing to him and he usually acknowledges their abnormality. The symptom is found in depressions, schizophrenics, and in some psychoneurotic states. These patients are continually observing themselves and frequently have hypochondriac sensations.

The psycho-analytic school believes that over-admiration by parents and fixations at the pregenital level are at the root of this syndrome.

The patient suffering from depersonalization appears to have lost his ego sense ; and his personality, his sense of being an individual entity, have become blurred, confused. He may go as far as stating that he has no body, that he is no longer human (nihilistic delusions).

One gains the impression that such individuals wish to minimize as much as possible both outward reality and the reality of their own bodies for reasons relating to guilt feelings and unacceptable libidinous urges, such as are at work in anxiety hysterics.

This symptom needs judicious handling and its importance must never be underestimated. It is referred to again under the symptom Apathy.

Ideas of Reference.—An overvalued or over-determined idea may, by affective selection of psychic material, produce a tendency to ideas of reference, that is, to misinterpretations of outside reality. Such a patient believes that events or activities around him possess some significance with regard to himself, usually in the direction of persecution or grandeur. Ideas of reference have the superficial appearance of embryonic delusions, but differ from the latter in that they are fleeting, open

to doubt and counter-proof, and based on reality data. Nevertheless, the dividing line between the two types of reaction is tenuous, both being examples of projection of affect, sensitive reactions of which there exist varying grades of severity from the neurotic reactions to the fully developed schizophrenic processes.

In all cases we should look for constitutional sensitiveness, feelings of inferiority, guilt feelings over masturbation, sex frustrations in later life, and ideas of self-importance extending over many years.

Autistic Thinking.—Under this heading we may place a symptom complex whose main feature is a withdrawal from reality coincident with a return to the inner resources of the ego. The autistic is self-sufficient and has no need for others. He obtains his satisfactions in life by fantasy weaving and auto-erotism; his plans for the future remain in the state of fantasy and are seldom translated into action. Simple withdrawal as a safeguard against the unpleasantnesses of reality is a common form of reaction; such as the young woman who guards against falling in love because she fears the repetition of previous unfortunate experiences; or people who shun the daily papers for fear of seeing anything unpleasant in print; or who avoid society because of its difficulties and the obligations inherent therein.

Catathymic Thinking.—This type is, so to speak, the outcome of the former; not only does the individual withdraw himself from the outside world and take refuge in his world of imagination, but whenever he does make outside contacts it is with the methods current in his realm of fantasy. It is as if a too prolonged sojourn in this easier world—this primitive world of magic where desires are fulfilled as soon as they are born—had taught him a new way of interpreting his surroundings, a way of transforming the contents of his experiences under the influence of complexes and affects.

Dereistic Thinking.—The name given to the transforming process above described. It belongs to the same category as dreams and the contents of the unconscious, disregarding reality, or falsifying it, disregarding logical or scientific method, and being entirely moulded by affective and instinctive

constellations. The symptom is met with in full bloom in schizophrenics.

Ideas of Influence.—A patient may state that his thoughts are being dictated to him, or that someone is influencing his ideas, or robbing him of his thoughts, or that they enter his mind in some mysterious way (autochthonous ideas). The general trend here is one of passivity on the part of the patient; he is not interpreting hallucinations, or at any rate he does not mention any, and these ideas therefore cannot be classed as hallucinatory experiences. One can certainly not ignore the theory of the psycho-analysts which postulates the presence in such cases of a passive homosexual tendency. Neither are the ideas of influence confined to thoughts, they also frequently affect the patient's posture and the position of his limbs.

Obsessive Thoughts.—Ideas which enter the mind with an insistence and a persistence against which the subject is powerless and of whose unusualness or abnormality he is fully aware, are called obsessive. As with the case of compulsions, an obsession is never an isolated symptom, and should be regarded as a disease entity of profound significance to the psyche. They will therefore be fully treated when we consider the psychoneuroses.

Disturbances of Orientation.—By orientation we mean a state of being aware of our own relationship to the time, the place, and the people at a given moment. Disorientation, therefore, constitutes lack of appreciation of one's surroundings, or of time, or of place, or of the individuals around one. It constitutes a symptom in many organic psychoses where there exists gross interference with cortical function and impairment of memory. It may be complete, as is frequently the case in such conditions as Korsakow's psychosis or severe senile loss of memory; or partial, as in some hypomanic states or from general lack of interest in one's surroundings; or patchy, varying from day to day, as in incipient or slowly advancing destruction of cortical neurones.

Because of its importance as a symptom of the organic psychoses disorientation should always be looked for with care, and no type should be diagnosed as psychogenic on the result of a single examination.

C. DISORDERS OF MEMORY

Although no special localization of the function of remembering is known, extensive interference with cortical structure or with the integrity of its paths reduces the capacity to remember. We shall therefore find this symptom, as is the case with disorientation, especially in the organic psychoses, where it possesses characteristic features, begins early on in the course of the disease, and becomes progressively more profound and far reaching.

At first the patient may complain of forgetfulness ; he has to make special efforts to recall recently-heard names, recent happenings and impressions. Gradually the difficulty invades the memorizing of earlier impressions, until finally only fragments of childhood memories remain. Attendant upon this marked impairment there is a loss of the power of association, of judgment, and of the ability to orient himself into new situations. In all cases of organic memory defect we shall find observational capacity earlier and more severely affected than the ability to reproduce old material. The defect therefore lies in insufficient registration, and not in failure to reproduce a known experience of recent happening. This we see well exemplified in senile impairment : the senile person takes less and less interest in novel experiences and situations, and more and more in his historical self, his past years ; neither does he take much interest in the particulars of the repetitive things of life, such as the seasons, the date, the ingredients of his various meals, the new faces he sees during the day, and so forth.

Side by side with this lack of mnemonic registration there appears the anatomico-physiological process of associational neurones being 'rubbed out' one by one. We are aware that this description is an impressionistic one, and that the scientific basis for it is yet to be forthcoming. But it is equally clear that a senile person will gladly skip fifty years and tell us the details of his wedding day, and is unable to repeat the name of a person to whom he was introduced less than three minutes ago. Whether such profound memory impairment is due to lack of interest in the new face and therefore to lack of registration, or to the failure to establish subsequent associations

during the time lapse of three minutes, still remains a problem for neuropathology. Certain it is that no single act of memory can ever exist in isolation, but only as a link in a train of associations down which the mind is enabled to travel backwards until the desired experience is reached.

Whilst massive and progressive dilapidation of the memory functions represents an important pointer to the diagnosis of an organic psychosis, the influence of affective factors in memory is of far greater significance from the point of view of clinical psychology. Fears and wishes exert a powerful distorting influence on memory; and this influence is a selective, not a massive one; it uses the method of repression upon impressions made on the mind, and thereby such impressions become more or less unavailable to consciousness. Moreover the selective influence upon impressions received has its effect also upon the material actually observed and upon its associational links. That is, affective forces choose that which shall be observed and that which will be remembered. The final product will therefore be a distorted remembrance or even a completely false one, the degree of falsification and distortion depending on the strength of the affective urges at work and also upon the personality or characterological structure of the individual, psychopaths and hysterics being in the foreground of such types.

Such then are the two main principles, the one organic, the other emotional, governing the pathological changes that may disorganize or completely annul memory functions. We shall now consider the nomenclature relating to the subject.

Amnesia.—Strictly speaking this word means absence of memory, but for the purpose of symptomatology its meaning has been extended to cover such conditions as partial, continuous, circumscribed, or occasional impairment of memory functions. Complete absence of memory is probably a theoretical abstraction, and in any case its existence would be almost impossible to prove; in advanced senile and epileptic dementia, and dementia paralytica, we sometimes find an almost complete absence of memory.

Circumscribed amnesia is met with in cases of loss of consciousness or of clouding of consciousness, such as occurs during

a period of confusion, a pre- or post-epileptic state, delirium, apoplexy, after head injuries, and after hysterical episodes.

Amnesia relating to a single event, or to a series of associated events, should raise the suspicion of an affective motivation. In such circumstances we shall discover that the event in question has been repressed for emotional reasons. Head injuries, patent or occult, should in all instances be excluded before diagnosing the condition as a psychogenic one, since amnesia for events immediately before and immediately after this type of sudden shock are common and not infrequently overlooked; this type of amnesia may, indeed, closely simulate a Korsakow psychosis, marked by disorientation, confabulation, and loss of memory.

Also to be excluded from the essentially psychogenic type is the amnesia after an epileptic clouding, or loss of consciousness, during which no convulsive phenomena have occurred. For a short space of time the patient may perform all sorts of strange acts, from undressing himself to sexual assault or murder, and show complete amnesia for his actions.

Amnesia also covers the hypnotic state, the state of unconsciousness brought about by electrical shock therapy, and certain hysterical storms. Recently some doubt has been cast on the genuineness of an amnesia following an hysterical fugue. A thorough investigation will, we believe, in most cases succeed in recovering the 'forgotten' material.

Hypermnesia.—Excessive retention of experienced material is only found in psychopathology, and here it is always circumscribed, including only such events as would serve an inner need or unconscious drive. Affective selection, therefore, is again a factor at work. Women will often show this hypermnesia for events and conversations relating to other women, from motives of retaliation, curiosity, or jealousy.

Chronic hypomanics are also frequently hypermnesic, and their retention of small details is sometimes striking. Again, true paranoiacs will retain, selectively, every detail and sequence of such events as might be useful to them in proving their erroneous contentions. It must be assumed that in the two last cases registration, under the strong stimulus of emotion, has taken place with particular intensity.

Paramnesia.—A term used to cover both spurious recollection and the falsification of factual experiences, it is associated with a local failure of recognition. It usually has some genuine foundation in past experience, some details of which have undergone repression, and others are linked up to unconscious associations. Paranoiacs are especially prone to this type of retrospective falsification.

Spurious recollection carries the same meaning as the word confabulation, which is used to denote such symptoms as the filling in with inventions of gaps left open by defective memory, and the congenital swindling and lying of the psychopathic personalities (*pseudologia phantastica*).

Also belonging to the category of erroneous recollection are the phenomena of *déjà vu* and *jamais vu*, which have been observed in such conditions as alcoholic intoxication, the epileptic personality, early schizophrenia, fatigue, and sometimes in persons in whom none of these factors can be found. No really satisfactory explanation has yet been given for these very puzzling experiences. *Déjà vu* appears to be an illusion of re-living a situation in its entirety; this illusion is occasioned by some definite and well-defined detail or aspect of the present perceptual situation, and then referred, erroneously, to the individual's past experience, factual or dreamt of. He freely relates this experience, repression taking no part in the process.

Finally, we must refer to those errors in remembering, and to the instances of actual forgetting, such as are met with in early life, and which have furnished Freud with yet another signpost to the realm of the unconscious and its underground activities. An intended action may run counter to our needs or wishes. The latter are, as a rule, kept in abeyance by the unconsciously exerted force of repression; but where this fails the wish, or fear, or need, succeeds in interfering with the remembering of the proposed action with the result that the individual 'forgets' to carry it out (*see Freud's Psychopathology of Everyday Life*).

Freud distinguished between forgetting of knowledge and forgetting of resolutions, and the net outcome of his observations was that the forgetting in all cases was founded on a

motive of displeasure and was the result of an unconscious opposite intention. The latter he also calls resistance ; that is, the individual resists unwittingly against the memory of disagreeable impressions and the idea of painful thoughts. Neurotic persons especially are liable to this kind of forgetting, but healthy persons also use the mechanism.

Painful memories, then, merge into motivated forgetting with special ease ; and lack of attention must frequently assume a secondary place in the causation of forgetting.

An intention formed in the morning with a view to its execution in the evening does not stay in our consciousness the whole day but sinks beneath the conscious threshold until the time for its execution approaches. It then awakes and excites to action. An intention is an impulse for an action which has already found approbation, but whose execution is postponed for a suitable occasion. Now, in the interval thus created sufficient change may take place in the motive to prevent the intention from coming to fruition ; it is not, however, forgotten ; it is simply revised and omitted.

D. DISORDERS OF PERCEPTION

Hallucinations.—Closely bound up with the subject of hallucinations is the distinction which we make between concepts and percepts. A concept is an image which exists in the mind ; a percept is an image which comes to us via the senses and which therefore possesses impelling vividness and about whose origin we do not frequently have any doubt, although the existence of illusions and dream pictures would prove that such doubts sometimes exist. Now, in abnormal mental states the distinction between concept and percept may become blurred. The concept begins to take on the vividness usually attached to a percept ; this vividness and intensity increase in degree until the concept becomes a perception, is projected on to the outside world, and becomes an hallucination.

We shall define an hallucination, then, as a mental image of perceptual vividness occurring in the absence of a sensory, or outside, stimulus. It is, generally, the result of projection of dissociated thoughts and occurs primarily in the psychoses.

In the acute organic psychoses the involvement of the sensory cortex or nerves forms the basis of visual and auditory hallucinations, although here too a psychological colouring is usually discernible.

The psychopathology of psychogenic hallucinations gives us an even clearer, and certainly a more fundamental, view of their mode of production. Whereas we speak of concepts becoming percepts, we now speak of unconscious wishes forcing their way through the repressive barrier into the conscious realm of thought and there appearing in disguised forms; thence they are projected on to the outside world as percepts. These wishes belong to the class of antisocial urges and therefore not to be confessed to as the patient's own. For, however well masked such wishes are on reaching consciousness, their disguise is insufficient to delude the patient's awareness, and he consequently deals with them with the double mechanism of dissociation and projection. The psychogenic hallucination is well exemplified in schizophrenics.

Intoxications with such drugs as alcohol and cocaine produce some of the most vivid and realistic hallucinations; so does the delirium of acute toxæmia and the focalized brain tumour. Again, the drug mescal induces, when taken to the point of intoxication, certain perceptual distortions and intensifications which have many of the features of true hallucinations, although they have more in common with illusory misinterpretations. No real analogy exists between mescal intoxication and schizophrenic hallucinatory experiences.

It is frequently found that the choice of hallucinatory fields is appropriate to or symbolic of the particular psychological need of the patient. Sight would subserve a fear; the hearing of voices best expresses guilt; hallucinations of smell would symbolize moral or sexual lapses; in all cases, however, the contents of the hallucination is of more clinical value than the choice of field.

Of all these the most common are hallucinations of hearing, either in the form of noises or of actual words spoken. The content will be found to be closely bound up with the patient's personal history, relating to both his inner and outer realities, and, like delusions, they may therefore express self-accusation,

self-aggrandisement, or persecutory fears. Thus, one schizophrenic patient declared that a voice whispered into his left ear that he was nothing but a "common syphilitic bounder"; the other voice spoke into his right ear and told him to set off for India and revenge himself on his brother out there; whilst upon waking up in the morning a voice would come from his rectum and tell him that "if it hadn't been for your mother you would have been a great man by now." Each one of these voices related to actual, though misinterpreted, experiences spread over a period of some fifteen years, and represented important historical landmarks in his life.

Hallucinations of sight are less common. A young hebephrenic woman sees a middle-aged female under the couch ready to spring at her; an old obsessional senile woman sees her clothes hanging up on a tree ready to be hired out to harlots at night; a middle-aged agitated depressive male sees boys and girls parading naked before his eyes and locks himself up against their importunities. In all these cases fear, anxiety, apprehension, presented the dominant affective tone to the experiences.

It must be repeated that any organic pathological state in any part of the sensory apparatus may also produce hallucinations, e.g., visual, auditory, haptic, smell, and taste. Again, alcohol and opium may have hallucinatory effects, if pushed to the point of toxæmia, the prevailing affect being fear, and even abject terror. In these types, as also in cocaine addiction, hallucinations of touch also occur sometimes. Finally, some schizophrenics will complain that they feel unseen hands moving over their bodies, also electric shocks, tickling, and tingling, the experience being sexually toned.

From the standpoint of clinical investigation we shall in the main depend for our evidence of the presence of hallucinations upon the patient's statements and on his outward behaviour: we may find him listening to and answering voices, or he may freely admit their existence. In the latter instance he may add that he is puzzled by them, or that he believes in their authenticity, or that he may be mistaken. Not infrequently he may act upon the authority of the voices so heard and injure himself or kill some other person upon whom he has projected the imaginary voice.

Hypnagogic hallucinations is the name given to such disturbances of the sensorium as sometimes occur in the state between waking and sleeping. Often these are more of the nature of illusions, that is, distorted percepts; they certainly are psychogenic in origin, as may be proved in all cases by superficial analysis or careful history-taking.

Case.—A young man, suffering from a Perplexity Reaction with mild depressive features, sometimes wakens up trembling at the illusory vision of a man in a black cloak at the foot of the bed. He has to rush out of the room at once lest some harm befall him. He then returns to normal again and fully realizes the true state of things.

Case.—A man of 75 complains that he sees a young woman at his bedside as soon as he begins to wake up in the morning. The apparition threatens to kill him by strangulation. On one occasion the arrival of his daughter with an early cup of tea happened to coincide with the hallucination and he attacked her viciously. Full realization followed at once.

In both cases a short and superficial analysis brought out the existence of home antagonisms. The young man's father was a portrait painter whose family had left him on account of his violent and bullying ways, which had, in the main, been directed against the one and only child, the patient himself, during the latter's very early childhood. The 'man in the cloak' was a childish representation of the dreaded and mysterious painter. In the second case a near-conscious feud between the old man and his daughter was laid bare, with a consequent complete cessation of the hypnagogic hallucinations.

E. CONSCIOUSNESS AND ITS DISORDERS

It has been said that the criterion of consciousness is the ability to communicate those contents of the mind which are available for communication. The main weakness of this criterion is its inapplicability to those cases where the contents are available but the subject will not communicate; another weakness is the inability to communicate because of inadequacies in our language system where feelings and sensations are concerned. But for all practical purposes the criterion gives a good working distinction between consciousness and

unconsciousness, where the latter is used in the sense of unavailability (J. G. Miller).

But there is another kind of unconsciousness. It is that in which the integrating cortex has, for some reason or another, been separated from the lower levels of the central nervous system, and is no longer receiving its customary stimuli from the outside world ; or again, where neither the various receptors, nor the cord, medulla, midbrain, or cortex, are capable of registering such stimuli.

From the clinical point of view, and within the scope of psychopathology, we shall meet with such shades of the meaning of unconsciousness as are represented by temporary absent-mindedness at one end of the scale and stupor at the other.

Absent-mindedness is due to factors interfering with attention ; any sort of pre-occupation will reduce vigilance. An absent-minded person is one whose awareness to his surroundings is lessened ; who does not respond at a given moment to stimuli which at other times would elicit a response from him. The condition is sporadic as a rule, although in some persons abstract mental pre-occupation takes such great toll of their reality contacts that they may be said to be permanently out of touch with their surroundings.

Clouding of Consciousness.—As a result of organic disturbance to the system of associations the patient no longer receives the stimuli necessary to his appreciation of the perceptive world ; the threshold of stimulation is also raised and his executive response to requests is slow and incoordinated. He can, however, still be roused to act in a simple way and be made to understand who, and where, he is.

Confusion.—Again, as a result of a toxic state, consciousness may be so impaired that the patient is disorientated in all fields and his associative functions are suspended. Hallucinoses and a pseudo-Korsakow syndrome may be added to this in cases of confusion after head injuries. It should be added that both clouding and confusion are here used as single descriptive symptoms, not as clinical entities—which indeed they are not—and we shall therefore find them occurring in many mental states, both psychogenic and somatogenic.

Twilight States.—Here, for instance, we shall find clouding and confusion of minor degree, but sufficiently marked at times to render the patient unaware of his surroundings. He moves about as in a dream, but unlike the true confusional patient, his actions are more co-ordinated and some orientation is usually present. In this state hallucinations may occur and the patient may perform actions for which he is afterwards amnesic. Hysteria and epilepsy frequently present this symptom-complex, escape from unpleasant inner or outer reality being the motive force in its genesis. From this it will be gathered that twilight states are of psychogenic origin. Any violent emotional upheaval, such as terror, anger, and erotic states may, especially, but not solely, in unstable individuals, bring about changes in consciousness followed by amnesia. Twilight states have also occurred in hysterics during the process of hypnotism; these unwelcome disturbances are often punctuated by violent affective discharges and hypermotility, which scenically represent autistic wish fulfilments, and sometimes stereotypy and verbigeration.

Delirium.—The boundary between the various states we have just considered is nowhere very marked; and between a twilight state and a state of delirium the demarcation line is also slender. In delirium we find certain characteristics very much accentuated; it should be looked upon as a syndrome rather than a symptom. Thus, a delirium consists of grave clouding of consciousness, with disorientation, hallucinations, incoherence of speech, and often illusions. Some writers, in fact, class delirium amongst the toxic psychoses.

In all cases of delirium we must look, in the first place, for somatic factors as causative agents. Amongst such causes we may mention infectious diseases, uræmia, eclampsia, hyperthyroidism, pellagra, and alcohol. The point of attack is the brain or its membranes, with toxic or structural disturbance of the cortex. Often the delirious states show marked oscillations: a patient may be in a state bordering on coma at night and be sitting propped up drinking his broth in the morning and talking almost rationally, only to relapse within a matter of minutes, perhaps, into a state of hallucinatory delirium with complete disorientation.

The content of organic delirious utterances consists as a rule of the material of the patient's everyday life, and is toned according to the affects normally colouring his daily experiences. But in some types of delirium, especially the alcoholic type, the emotional complexion is one of fear or even panic. Perceptual distortions and falsifications are common; fairly common, too, are sound associations and rhyming, and echolalia, the patient repeating a phrase or word spoken by someone in the room.

There is also a psychogenic type of delirium; but this is much less frequent than the somatogenic type. Here we shall find none of the symptoms suggesting profound physical illness; neither does the content of such delirium cover the day's activities, but rather the personality difficulties with which the patient has unsuccessfully grappled and which have provided the *raison d'être* of the delirium. In these cases the latter is a form of escape from too much psychological perturbation, or the means of inducing the sufferer to believe that his antisocial wishes have at last been granted—a second-rate exchange of the reality principle for an illusory pleasure principle at the expense of mental health.

Trance.—This is a variant of the dreamlike state, in which outside stimuli have no corrective or alterative influence upon behaviour. A patient in a trance is acting a part from psychogenic motives and does not show normal reactions to such stimuli. The general tone of a trance is usually one of supreme content and indiscriminating satisfaction: he has shed the trammels of a too earthly body and moves in a fantastic world of spirits. The phenomenon has been noted in epileptics, hysterics, and psychopathic personalities. Trances with religious coloration were at one time plentiful.

Ganser Syndrome.—This also is a type of twilight state, in which dissimulation provides the motive. It may be said to be a state of restricted consciousness in which the individual concerned acts the part of the buffoon-insane in order to escape legal punishment for antisocial behaviour. It will be referred to again in another context.

Stupor.—In this condition the patient has succeeded in withdrawing himself as completely from his surroundings as

it is possible without overstepping the threshold of life itself. Indeed he presents the symbolic picturization of death, or antenatal life, with motor rigidity and complete failure to respond to stimuli of any kind, whether pleasant or painful, outer or inner; neither feeding nor evacuation stirs him to activity, and his saliva dribbles from his mouth because he does not even trouble to carry out swallowing movements.

The patient, in many cases, presents the clinical features of motor rigidity of the strio-pallidal syndrome—with mask-like expression and immobile bodily posture. Consciousness is not suspended, the patient being in fact intensely pre-occupied within his own mind, but he is silent and unresponsive to stimuli.

The condition is met with in catatonic schizophrenia, in epileptics, in hysterics, in profound depression, and in states of complete apathy, in all of which cases it is called psychogenic. It would be well to restrict the name 'stupor' to the psychogenic type, and only to such instances as present the features of motor rigidity with complete lack of response to stimuli from all sources. In the somatic sphere we might use the term 'stuporose state', as in uræmia, intracranial disease, and toxic conditions, where consciousness is grossly impaired or lost, where the neuromuscular apparatus is not in a state of discernible activity, and where the patient is manifestly ill.

Somnambulism.—One of the several forms in which the mechanism of dissociation succeeds in splitting up the stream of consciousness in cases where repression has failed to deal with unwelcome wishes and other unconscious forces. It will be dealt with in another chapter.

Hypnosis.—Here again we are dealing with a psychic state artificially induced by suggestion, in which consciousness is reduced from all-round contact with the environment to the single psycho-sensory contact with the hypnotizer. Hypnosis will be considered under its appropriate heading.

Sleep.—No one single theory so far propounded in order to explain the phenomenon of sleep is adequate to cover all its aspects. Amongst investigators who have attempted to explain both the rhythm and the internal mechanics of sleep are Freud, with his theory of a return to the intra-uterine

state of existence; Pavlov, and his theory of internal inhibition; von Economo, who assumes that it is due to lack of incoming stimuli; the supposition of chemical substances of a catabolic nature circulating in the cerebrospinal fluid; or of endocrine substances; the assumption of a sleep centre in the region of the third ventricle, or the hypothalamus, or the cortex; and others.

Four varieties of manifestation can be distinguished in sleep: the two negative ones are the loss of muscular tone and the dulling of consciousness; the two positive ones are the increased activity of the parasympathetic system and the release of dreams.

The probability is that more than one hypothesis is needed in order to meet all the requirements of a satisfactory explanation. Where rhythm is concerned one may suppose that all living protoplasm will go to sleep when fatigue (possibly a chemical product) sets in. Amongst the higher animals, such as man and the domestic animals, order is brought into this haphazard activity-fatigue-sleep periodicity by the necessities inherent in civilized society and based in the main on the more fundamental periodicity of day and night. Nor is this artificially imposed order by any means so perfect that it stands in need, or is worthy, of a scientific explanation. This kind of speculation would lead us to suggest that psychogenic disturbances of sleep are essentially of a regressive or atavistic nature, an unconscious negativistic attitude towards the civilizing curb placed upon our instinctual drives.

Can it be that sleep is simply a frequently-repeated retirement from too much concentration on daily impositions—a species of insurance against fatigue and boredom, rather than a result of fatigue? In sleep we turn our minds and bodies away from the otherwise endless interests of the day. But this is merely the negative side. We do not stop thinking; our autonomic system does not stop working; even our pyramidal and extrapyramidal systems do not entirely give up working. So that the positive aspect would be a retirement into a sphere of interests which our daily work prevents us from entering into. To be sure this sphere also has its vexations and mortifications, but it is more easily drifted in and

out of, and it is not subject to the restrictions and impositions of the herd.

We realize that this is mere essay and speculation and that we are heading in the direction of Freud's intra-uterine supposition. Why should we assume that human beings would desire a near-death state? Is it not sufficient to say that we merely wish for a periodic change of civilized interests for the interests of our innermost dreaming—as a safeguard against the otherwise intolerable repetitiveness of daily life?

Of all the disturbances of sleep the commonest is that which goes by the name of *insomnia*, a term much abused both by the laity and the profession, and frequently meaning no more than the expression of a purely subjective feeling on the part of the patient. Unfortunately, the question of proof or disproof is in all cases a difficult one, and we are perforce reduced to a consideration of the symptomatology, if any, arising out of the alleged lack of sleep. It is certainly remarkable how people who "never close their eyes" manage to hide the grave consequences which they suppose are bound to follow this sleepless state. Lack of habit formation is here very frequently the main causative factor. In other cases the individual who does not usually complain of his lack of sleep is probably one who does not need the average quantity of sleep. In others, again, we find preoccupation with the day's unfinished and unsatisfactory activities; and to this category belong quite a number whose daily work is non-productive, or non-satisfying, or consists merely in a round of social superficialities.

Apart from the early stages of toxic conditions we find the most genuine types of insomnia amongst the manic-depressives and the psychoneurotics (anxiety and obsessional states); inversion of sleep rhythm has been noted in encephalitis lethargica; excessive sleepiness is also found in the latter disease, as well as in increased intracranial pressure and pathological conditions of the base of the skull.

Finally, it must be emphasized that insomnia is never an isolated symptom and should never be accepted at its face value.

F. DISORDERS OF AFFECT

By affect we mean the feeling-tone attached to psychic processes, and it therefore includes all shades of emotional colouring from dislike to hatred, from apprehension to terror ; liking and loving, jealousy and anger, and so forth. Where we use the term feeling we wish it to be understood as separate in meaning from the term sensation, which latter deals with sensory impressions, and at the same time to point out that in clinical work the two are frequently presented together—that is, experienced together.

Elation.—As a symptom of mental derangement elation is held to cover a joyousness out of keeping with the patient's particular circumstances, together with excessive self-assurance. The elated individual is living on the verge of irritability and his joyousness readily shifts to annoyance and bad temper.

An affective state somewhat lower in the scale is that of *euphoria*, where the patient, besides feeling patently happy, also states that he feels extraordinarily well physically. It is of this state that we may truly speak of "infectiousness", as there is nothing too *outré* about it ; that is, a euphoric person is likely to induce joyousness in others.

Exaltation.—In this condition we do not find the degree of joyousness which characterizes either of the foregoing types. The exalted person has passed the stage of mere happiness and has assumed an air of solemnity and bombast ; his speech is grandiloquent and he radiates presumptuousness.

Ecstasy.—There is no real joyousness in this condition ; it is, rather, a withdrawal from the stark realities of every day into a spiritual world of the patient's own fancy, where he feels himself disembarassed of sin and guilt, and in which the affect is one of supreme satisfaction.

Depression.—A state of sadness may merely be a reaction to environmental conditions ; on the other hand, it may be a reaction to factors outside the patient's awareness. The former is known as a reactive, the latter an endopsychic depression.

The degree of deviation from the normal is measured by the intensity of the affect, by its duration, and by its congruity with existing circumstances. No pathological deviation from

the normal is ever purely reactive to outside circumstances, but always, and to a major degree, the resultant of a stirring experience impinging on constellations of unconscious drives, fears, or wishes ; the conscious adverse experience has become the catalytic agent for stirrings which otherwise might have lain dormant.

Apathy.—A state wherein the patient finds himself incapable of feeling the affects normally called forth by life's experiences. Frequently the patient complains of this absence of appropriate feeling, and, paradoxically, states that it makes him depressed ; or he may merely say that he is upset or puzzled by it. Here, as in the profounder types of cyclic depression with depersonalization, we are faced with the difficulty of explaining an apparent schism between the sensorium and reasoning. In profound depression the patient's reasoning is gradually overcome by the strangeness of his sensations, and he will, because of the overwhelming evidence of these sensations, come to aver that he is no longer the person he is supposed to be. In apathy his reasoning self is aware of a gradual shrinking away of the warmth and vividness of the normal experiential world around him, and his reasoning tells him that this is an occasion for being depressed.

Are we here in the presence of a thalamic dysfunction—a condition in which the cortical analyser is being presented with distorted material ? Or, on the other hand, must we assume that the cortical analyser itself is being influenced by the distorting forces active in the depths of the psyche ?

Anxiety.—This symptom-complex possesses a double aspect ; there is, first, a state of fear, which is only apparently related to the environment ; and, secondly, there are certain somatic concomitants, mainly expressed via the autonomic nervous system. The fear is generalized, and attaches itself to the most varied and commonplace situations, which then appear to the patient as pregnant with possible impending catastrophies. Its main spring is psychic conflict, and therefore the threatening danger resides within the individual himself ; there is no escape from it, and for this reason anxiety, unlike ordinary fear, persists. The basic, but unrecognized fear is the fear of ego-annihilation, and this is verbalized

and imagined in terms of everyday life situations and possible contingencies, e.g., insanity, sudden death, train accidents, meeting strangers, and so forth. The process by which the unknown is translated into terms of the known is called displacement; or more accurately, the affect emanating from an unrecognized source is transferred to a substitutive idea.

Anxiety states will be fully gone into later on and their importance in psychiatry discussed.

Lability.—A term used to describe apparently causeless oscillations between different kinds of emotional responses; the latter have become fluid instead of exhibiting the normal quasi-stability.

Emotional Deterioration.—In this condition the patient has lost the capacity to respond adequately or pertinently to stimuli; his responses may be excessive, or reduced in intensity, or inappropriate.

Ambivalence.—The presence at the same time of two antithetical emotions towards one and the same object is called ambivalence. It is a universal and deep-rooted dualism of the human psyche; whilst a positive feeling tone is present, its negative, or opposite, is merely held in abeyance but is never far away. Stability of the emotional attitude towards an object will therefore emerge from a reconciliation of opposites, from a fusion of antithetical feeling tones.

In primitive peoples ambivalence is well brought out in the matter of taboos. The object of taboo may equally well be the tribal chief and certain restrictive sanctions; commandment and a prohibition; the sacred and the sexual.

If no reconciliation between opposite feeling tones is possible the emotional state is unstable and swings from one extreme to the other; conflict is then at work, and especially when this ambivalence is complicated by internal turmoil, the contradictory attitudes remaining active in the response patterns.

Ambivalence is also clearly seen in the varying attitudes of the patient towards his analyst: the patient makes use of his analyst in order to unload all his emotions, of whatever kind they may be, upon him. Thus it happens that hatred and love, suspicion and confidence, vie with each other from day

to day. The final stabilization of the patient's emotional attitude towards the analyst should, theoretically, be coincident with the dissolution of his neurosis.

Children exhibit ambivalence in a characteristic manner, especially towards their parents. The measure of our emotional maturity is the degree to which the double feeling tones have become fused, or at least algebraically equated.

CHAPTER V

PSYCHIC MECHANISMS

IN the previous chapter we considered those outward signs of deviations from the normal which, on the whole, were clearly observable and referable to the sphere of pathology. It is true that no attempt was made to classify these signs, except on the vague basis of acting, thinking, and feeling. This deficiency is due to the inherent difficulties of the subject and to our, as yet, incomplete knowledge thereof. Moreover, a major portion of the symptoms described express a psychosomatic disturbance whose intrinsically dual nature it would be unprofitable for our purpose to attempt to separate.

The following mechanisms—or dynamisms—also are indicators of psychic disharmony. Yet they cannot be classed as symptoms in the usually accepted sense of the word. They are better described as attempts on the part of the individual to deal with conflicting tendencies, personality difficulties, and character defects. The individual endeavours by varying means, and with varying success, to force a heterogeneous ego into a rigid mould generally acceptable to his environment, and without at the same time giving up too much of his own private ego-image.

Though some of these mechanisms border on psychopathology, or could do so if sufficiently intense and insightful, some are used by most of us on those occasions when the ego-object relationship becomes too difficult to maintain. Amongst these mechanisms we may mention Identification, Compensation, Fantasy, Introjection, Projection, and Rationalization. Sublimation and Symbolization occupy a separate position. Repression, Regression, and Dissociation must be looked upon as pathological. It should also be added that these mechanisms do not exhaust the fund of ways and means at the disposal of the psyche ; there are others, such as dreams,

condensation, lying, and the various types of neurotic and psychotic reactions, all of which will be reviewed in succeeding chapters.

We will here make mention of those mechanisms of the mind which custom has sanctioned under that nomenclature and whose usage does not seriously imperil mental soundness.

IDENTIFICATION

By identification we mean the assumption of characteristics and emotions of another person; it is a partial or complete coalescence of one's own personality with persons or objects in the outside world. To some extent it is the opposite of projection; in the latter we reject certain unwanted qualities of our personality on to others; in identification we appropriate as our own those qualities which we desire to possess ourselves.

This description of the mechanism of identification would imply too great a simplicity in its working. A maid imitates the handwriting of her mistress, copies her clothes, and incorporates some of her sayings into her own speech, irrespective of whether any or all of these personality signs are desirable or not; her illogical and unconscious reasoning is that the lesser shall include the greater. A child may complain of duodenal ulcer pains in the same way as her father who has had this condition diagnosed in himself. A man complains of being handicapped in life through having been born on the same day, at the same time, and in the same street as a notorious wife murderer; investigation leads to the certain conclusion that he has himself nurtured strong sadistic feelings towards his own wife for many years. A middle-aged agnostic attempts to satisfy the remnant of his religious upbringing by imitating the mannerisms of a brother who is an army chaplain.

These examples will help to bring out the devious ways in which this mechanism fulfils the function of satisfying certain deep-rooted needs of the personality, or of escaping from feelings of guilt, fear, and inferiority. It is harmless enough when merely used for these purposes; it is productive of inner dissatisfaction when the ideal aimed at is out of all

proportion to our capabilities ; it passes the threshold of sanity when identification with an unattainable personage is so complete that we, in fact, believe that we are that personage.

A second kind of identification is sometimes described by which one person is unconsciously identified with another. But this would be better described as partial recognition or association by similarity.

PROJECTION

The existence in the unconscious of wishes which, if allowed full satisfaction, would either detract from the ego-estimate or would meet with social censure, is, by the mechanism of projection, first disowned and ejected by the psyche, and then apprehended and perceived as if it were the attribute of another person. The process has, therefore, a double aspect : the expulsion of an unwanted quality and its re-discovery in another individual. The whole process is carried out below the threshold of consciousness, and its object is a defence against the emergence of such characteristics of our ego-ideal as we are afraid or ashamed of, or with which we are wholly dissatisfied.

A doctor who did his best to destroy the reputation of a consultant of his own age for a minor breach of medical etiquette was later on found to be a drug and alcohol addict. A middle-aged hospital sister left the table, hot with indignation, whenever the topic of sex was broached ; she was later on admitted suffering from paranoia, and the main theme of her delusions was rape. A fifty-year-old solicitor who loudly criticized the services of a hotel was, some time later, suspended by the Law Society for gross neglect of his practice.

In these three examples it is clear that the criticism emanated from the patient, and, aimed at other individuals, had its foundation or motivation in the patient's own unconscious ; moreover, the irregularities at which the criticisms were directed afterwards proved to be undesirable attributes belonging to the patient himself.

Most of us, at times, make use of the mechanism of projection ; it is the psychological interpretation of the beam and

the mote. Some individuals, the neurotic grumblers and perfectionists, project on all possible occasions without much insight. Yet others, such as chronic drunkards, paranoid types, and repressed homosexuals, find in the mechanism a dubious and spurious form of ego-satisfaction. And at the end of the scale we find projection flowering into the delusions and hallucinations of the frankly psychotic.

INTROJECTION

We saw that in the process of identification we assume the qualities and emotions of another person. Introjection is an analogous type of mechanism; by means of it we incorporate into our personality elements of the personalities of others. Here the incorporation of such elements is brought about unconsciously, and only during the formative years of life. Moreover, the elements thus incorporated are usually of a restrictive, inhibitive nature, and proceed from parental and other authoritarian sources. Thus is formed that part of the psychic totality known as the super-ego, which may here briefly be referred to as an inner censor of our actions, thoughts, and emotions. This censor, having itself evolved from the prohibitive attitudes of those in authority over our childhood, and having, by the process of introjection, become part of our very structure, now sits in judgment upon us. It will be realized that all grades and shades of severity may attach to this censor, even to the point of producing melancholia in its owner or driving him to suicide as an ultimate self-punishment.

Persons suffering from compulsive-obsessional neurosis almost invariably give a history of severe or bullying treatment in childhood. The introjected experience of such tyranny leads the obsessional to see the reflection of harsh authority in those who, in later life, are placed over him; he consequently obeys injunctions and commands with uncommon strictness and pedantry. Unfortunately he goes even further than this: his despotic super-ego vetoes any kind of frivolity, either with sex or money, smoking or swearing. Then, as a compromise between this parasitic austerity and his instincts,

he invokes the help of ritual, of magic, and so on, which in turn enslave him.

RATIONALIZATION

This well-known mechanism is used by every one of us, and very much more frequently than we care to own, because it is more pleasing to the human mind to explain away with a show of logic that which we wish to think is true. By means of a specious display of reasoning we endeavour to conceal the real motives of our actions both from ourselves and others ; or we attempt to justify, by laws current in the intellectual sphere, that kind of behaviour whose real motivation either does not reach consciousness, or if it does, would minimize our self-esteem before the world and also in our own eyes.

Rationalization, then, is a socially desirable description of those of our actions arising from motives which we are either unwilling or unable to communicate to others. The more society insists on its members telling the whole truth about their actions, the more our fellow-men insist on knowing the privacy of our experience, the more shall we be driven to rationalize. As long as we can give culturally acceptable premisses for our actions, so long will the latter pass muster ; anything antisocial will become irrational. Rationalization is an outward justification for affective thinking ; a means by which we provide ourselves with a fallacious reason, thereby escaping the unpleasantness of facing the real issues involved.

The mechanism is met with in everyday life in the sphere of politics, ethics, morality, and religion. We also see it in post-hypnotic states, where the person hypnotized rationalizes the apparently pointless acts which during unconsciousness he has been ordered to carry out. Again, on recounting our dreams, we are at pains to bring some rational order into them and explain the motives at work, little realizing that these motives are, more often than not, as wholly hidden from us as is the fact that we are rationalizing. Psychoneurotic patients use this mechanism as a compensation for their own inadequacies, towards which they show marked intolerance. The elderly bachelor will rationalize his celibate state in terms of

finance, instead of, perhaps, in terms of mother fixation. A young man blamed his father's second marriage for his own failure to find a wife ; he proved to be a declared homosexual. The paranoiac erects for himself a complete system of rationalizations whereby he is enabled to meet whatever objections are made to the acceptability of his strange beliefs.

OVER-COMPENSATION : REACTION FORMATION

An inward felt deficiency of the personality is often covered over by an outward exaggerated show of precisely the opposite quality. The individual is not fully aware that he is over-compensating and at times shows an extraordinary lack of insight into his behaviour. It constitutes one of several methods whereby the psyche attempts to maintain its ego-ideal and the safe survival of the ego itself. It is the psychic representative of a general biological law, by which inadequacies, of whatever kind, must be made good.

That this law sometimes defeats itself by over-emphasizing its curative or compensatory zeal needs no proof ; the compensatory impetus soon finds itself overtaking in intensity the very deficiency which it was trying to overcome, and the whole process results in the establishment of a state of affairs nearly as deleterious to the organism as the previous state. The curative enthusiasm of the stomach musculature in ridding the mucosa of noxious substances at times knows no bounds and a state of acidosis sets in ; the compensatory secretion in large quantities of fluid between two inflamed joint surfaces may end in complete disorganization of the whole joint.

So it is with over-compensation in the psychic sphere. Here the compensatory process brings about a reaction formation whose characteristics are the opposite of those of the deficiency which it is sought to overcome or counteract. Alternatively, the reaction pattern may be an attempt at minimizing a physical defect by accentuating in speech and behaviour such qualities as are not usually associated with that type of physique.

Compensatory reaction formations are of many and varied kinds. Arrogance and aggressiveness, fanaticism and ruthlessness : these are not the qualities of a well-integrated

personality but rather the outward pointers to an inward feeling of inadequacy or fear. A rigid moral outlook, priggishness and ostentatious righteousness: these are the masks of intolerable guilt feelings for, perhaps, childish transgressions, or for mature antisocial desires.

A forty-year-old schoolmaster was advised to follow a certain regimen of life because of symptoms suggestive of an aortic aneurysm; he promptly bought a tennis outfit and insisted on playing more games than anyone else on the tennis court. He collapsed and died after a strenuous game, and the suspected condition of the aorta was confirmed post mortem.

A forty-eight-year-old woman was admitted into a Mental Home in a state of hypomania; she declared that she had been sent in order to take charge of the house and that her father had been a retired Commissioner of Police. Her father had, in reality, been pensioned off as a tailor to a Mental Hospital, and the fact of his occupation had been a sore point to the patient all her life.

In the course of a psychological investigation a man of twenty-five 'confessed' that he had had sexual intercourse with dozens of women since the age of twelve. Later on he revealed the fact that he had suffered from *ejaculatio præcox* since that age and from nocturnal enuresis all his life.

FANTASY

The imaginal representation of a wished-for reality is known as fantasy; and it represents a means of escape from the too persistent and insistent calls of the environment. For a while external objectivity gives place to internal objectivity, and compulsory adjustments are swept away into an easy-flowing stream of desires gratified, ambitions attained, antisocial urges fulfilled. The world of fantasy is a world of magic, where conflict does not find a place and where obstacles need not be reckoned with.

In early life it practically constitutes true reality for the child. For him reality is that which he makes himself at the dictates of his wishes; the distinction between his external and his own brand of reality is still nebulous, invention and

imagination filling in the gaps, very much as during the childhood of the human race myth and magic were the speculative tools of the mind, in anticipation of the development of scientific objectivity.

In adolescence fantasy still occupies an important position, being at once a method of future planning and a means of achieving in imagination those adult ambitions for which the immature mind and body are as yet inadequately equipped in reality. But whereas fantasy does not deal with facts, true productive imagination is a stepping-stone towards achievement.

As we approach adult years fantasy should become less and less in evidence, and the habit of autistic thinking should give place to critical evaluation of reality. Autistic thinking is characterized by being catathymically controlled, uninfluenced by reality restrictions, and by seldom passing over into action. It will be seen that the mechanism is not only socially useless but is also fraught with danger to the individual, who finds in it an easy way of avoiding conflict or of making up in imagination for what he lacks in reality. Where fantasy weaving becomes firmly established we shall find a coincident retreat from fact, and the door to hallucinations and delusions stands wide open.

Day-dreaming may become a habit of the mind. The individual, having met with environmental forces running counter to his desires, to his ambitions, or to his estimate of himself, or to certain fixed ideas inculcated in him during childhood, leaves the field of battle and retires into a world of his own making, where he is accepted at his own valuation and where his complexes can be given full scope and free rein. Masturbation and masturbatory fantasies are a frequent accompaniment of these solitary psychic orgies, and in a short time the individual acquires the capacity of being self-sufficient in almost all spheres of life, unlearning at the same time the ability to face his fellow-beings and to live in a world where giving as well as taking finds a place.

With the passage of time the world of reality and the world of fancy become blurred, and finally the former drops out of reckoning altogether: the stage is set for a schizophrenic

psychosis. On the other hand, fantasy thinking may never reach the stage of submerging reality ; the creations of day-dreams may become the raw material of fiction or poetry.

The term introversion, coined by Jung, describes this habitual retreat into the world of fantasy. Freud has described it as a means for the return of the libido to its own fixation points and as an intermediate step on the way to symptom-formation ; but also as a path back to reality via art, through which the mechanism of sublimation is brought into action. The artist, says Freud, understands how to elaborate his day-dreams so that they lose that personal note which grates upon strange ears, and they become enjoyable to others ; he knows, too, how to modify them sufficiently so that their origin in prohibited sources is not easily detected ; finally, he possesses the mysterious ability to mould his material until it expresses the ideas of his fantasy faithfully.

REPRESSION

The automatic and unconsciously operated mechanism whereby certain painful elements of experience are banished from consciousness is known as repression. It constitutes, according to Freud, the most powerful method of defence by the ego in conflict situations. It must not be held to be equivalent to simple forgetting, but rather a positive, though unconscious, forcing out of the sphere of awareness those experiences which either detract from the ego-value, or run counter to the tenets of the herd. There are other ways in which experiences or learnt material cease to be operative in consciousness, such as (possibly, but not probably) by the wearing away of memory traces through the passage of time ; or by interference with old memories through the arrival of new experiences (retro-active inhibition) or by conscious suppression ; or by the positive extinction of conditioned responses. Here, however, we are concerned with the process of repression ; the various types of forgetting have been discussed elsewhere.

The Freudian concept of repression is clear and definite. The satisfaction of an instinct is obtained under the dominion of the pleasure principle ; but the super-ego comes into action

as soon as the instinct wells up from the Id. If on any previous occasions the satisfaction of this instinct was attended by painful experiences, anxiety makes itself felt on subsequent occasions. Nor need these occasions necessarily involve actual satisfaction of the instinct; the mere realization on the part of the individual that he possesses such an instinct at all may cause him uneasiness and pain. The instinct, thus linked up with painful anxiety instead of being pleasurably toned, is banished; and even its very existence undergoes repression.

Freud describes two types of repression. In the first type all ideas related to instincts are forbidden entry into consciousness; in the second, thoughts related to instincts which at one time had occupied the conscious sphere are expelled therefrom and denied re-entry.

It must, however, not be assumed that repression is invariably simple and successful. The motive force inherent in the rejected instinct remains in a state of activity and betrays its presence in various altered forms. According to the psychoanalyst this return of the unconscious takes place in dreams, in psychoneurotic symptoms, in the psychoses, as symbolic behaviour, as forgetting, and even in slips of the tongue and the many errors of everyday life.

Critics of Freud's theory of the instincts, in connexion with repression, might, without loss on either side, use the terms 'drives' or 'needs' instead of instincts; such as the need to keep one's pride and self-esteem intact. Others have sought to establish an antithesis between Janet's theory of dissociation and Freud's concept of repression: the former postulates the existence of two levels of attention; the latter postulates two psychic levels also, but, in addition, attempts to give a reason for the existence of these two levels. The two theories are not necessarily conflicting; both of them aim at explaining the mechanism of amnesia. The dissociation theory does not, however, adequately explain unconscious behaviour; it merely states in fact that one level of attention does not know what the other is doing, and that the two exist independently of each other. Freud's repression theory, on the other hand, assumes that a real functional interdependence exists between conscious and unconscious; the repression

of past experience does not preclude its interfering with present behaviour, though both the psychic nexus between the two and also the actual repressed experience are screened by amnesia.

The unconscious submergence of a painful experience is brought about by counter-activation located for the most part in the fore-conscious (Frink); this opposing force is known as resistance. Its function is to defend the ego against those elements of its experience which it considers foreign to thoughts and feelings on the conscious level; that is, foreign to the individual's standards of ethics, morals, and ideals, or conflicting with his self-esteem, or otherwise productive of unpleasure.

Further, repression depends for its establishment on the foundation of an ego-ideal—an ill-formulated and largely pre-conscious code of attitudes towards the herd. With the establishment of repression, about the third year of life, is formed the nucleus of the future contents of the personal unconscious.

According to Stekel, who may be classed as a post-Freudian psychologist, successful repression is conducive to mental health and helps towards the attainment of happiness, as it constitutes a refusal on the part of the conscious ego to recognize a complex; whereas the process of what he terms "annulment" is always a pathological mechanism. Unlike repression, annulment is a refusal on the part of the Id-ego to recognize the existence of a complex, and it represents a beginning of a morbid cleavage in the mind. From this initial cleavage springs the schizophrenic reaction type; from here, also, it is but a short and easy road to projection and hallucinations; the annulled material remains, as it were, encapsulated and inaccessible.

Other workers (Klein, Fairbairn) hold that repression is directed not so much against infantile memories as against those introjected objects which the child, from his point of view, has considered bad or shameful, such as a sexual assault. They assume that this bad object makes the child feel bad, and act as if he were bad, through identification therewith. If repression fails a symptom will be evoked.

REGRESSION

When faced with serious psychic or somatic illness the personality may seek refuge in flight. This withdrawal before a reality which threatens the personality's integrity must, in the nature of things, be a retreat; moreover, the direction will be towards that stage of individual development where reality had seemed benign or actually pleasing. The mechanism consists in an attempt on the part of the psyche to adjust at a lower level; and this lower level is characterized by immaturity and by infantile or even archaic modes of reaction. There is here no need to struggle with reality; outgrown forms of behaviour are re-animated and a spurious sort of peace is bought at the cost of mental normality.

Freud assumed the existence of two kinds of regression, which he formulated in terms of his libido theory. The first kind consists in a return of those objects which were originally invested with libido; that is to say, incestuous objects. The second is a return of the whole sexual organization to earlier stages of development. Of the former type hysteria is an example: here we have a retreat of the libido to the primary incestuous objects. The second type is exemplified by the obsessional psychoneurosis: the libido has regressed to the antecedent stage of the oral-sadistic organization, and the urge for love is screened by a sadistic impulse.

Regression to oral or anal stages is seen in serious somatic disease, and more especially when the disease affects the psychoneurotic type of personality. Senile changes in the cortex lead to alterations in behaviour characteristic of earlier developmental changes, such as wetting and soiling. Schizophrenics, again, show regressional features: mutism, retention of body fluids and solids, unresponsiveness, catatonic stupors, dramatization of death itself; whereas in the sphere of imaginative activity we shall find fully developed abstractions re-translated into picture language. A less profound form of regression is seen in the fantasy formations of the adolescent. In somatic illness, too, we meet with it in the form of pettishness, of lack of emotional control, of a desire to be continually fussed over; a reversion to childishness.

A form of regression is seen in dreams; the wealth of symbolism in dreams represents a return from abstract to concrete picture thinking.

Chronic alcoholics and epileptics frequently exhibit regressive features in their behaviour; projection in the former, and sulkiness in the latter, are two examples.

SYMBOLISM

The subject of symbolism, and symbolization, can here only be considered within the terms of reference of psychological medicine; a more extensive treatment than this would take us out of the scope of this work.

Essentially a symbol is the functional representative of a thing other than itself. Within this definition lies the further implication that a symbol possesses two meanings: the first, its own meaning; the second, the meaning of that thing which human needs have elected it to represent. Thus a stag is, in the first place, a four-footed mammal, handsome in appearance, fast running, and timid. In the second place, it may be made to represent the abstract notion of speed only, in which case fleet-footedness becomes the nuclear meaning and the other zoological attributes of the animal assume a secondary significance. Stag-animal has become a mere façade for rapidity in locomotion. In this case animal and speed are still interchangeable, and we are still at liberty to choose the one or the other according to the needs of the moment. But let us now assume that we are given a composite presentation: the picture of a car with a shaded outline of a stag worked across it. Animal-meaning must now be definitely ruled out, and speed-meaning must be presumed. Stag has become the visible sign, not of a zoological species, but of all those complicated mechanical contrivances incorporated in the car which make the latter stand out as a fast and racing model of its kind. Here, however, a new factor has been introduced: some measure of interpretation of the stag-car conjunction is called for, and without a knowledge of the properties of each element the composition as a whole fails to convey its hidden meaning. If, on the other hand, the manufacturer of the car did not, in fact, intend to convey the meaning car-speed, but

had incorporated the figure of a stag merely to commemorate some notable experience in his private life, then our first interpretation becomes null, and we shall need the key to unlock and set free the latent meaning behind the symbol. The latter has become a mode of expression; and in the example given the expression is performed on the level of consciousness.

In dreams, where symbolism constitutes almost the only mode of expression, the dreamer does not realize that he is using the mechanism and does not even recognize its import in his waking life; his knowledge of symbolism belongs, therefore, to his unconscious mental sphere. The visual picturization which forms the dream proper is no more than a successive series of symbols, and behind each one of these symbols the true significance of the total picture lies concealed. The visual hallucinatory experience constitutes the manifest content of the dream; the latent content has to be deduced from our knowledge of symbols which, according to Freud, are universal; some belong to the dreamer's own experiential reality.

Symbols are also used to express those elements in our unconscious which, having been submitted to repression, attempt to force their way into consciousness, where, in order to escape recognition, they may only appear behind a symbolic mask. An emotional experience which was affectively painful, or a desire which would lead to the personality performing an act not approved by its own environment, may be expressed by some symbolic act such as a facial tic, or a mannerism.

The psychotic is lavish with his symbols. His queer outlandish behaviour is pregnant with hidden meanings; to those who possess the right method or key for their interpretation psychotic oddities become more understandable and less strange. The psychosis is a compromise between profoundly divergent tendencies; and its method of presentation is by means of symbolization. Especially is this the case in schizophrenia; moreover, the symbols here are more difficult to interpret because they are frequently archaic remnants from the early beginnings of the human race. Psycho-analysis, in particular, has set itself the task of symbol-interpretation,

and it is to Freud and his school that we are especially indebted for having shed light upon much that was previously inexplicable and untranslatable. Thus, obsessions, compulsions, and delusions are psychic symbols; amongst organic symbols—that is, those whose expression is effected via the bodily organs—there are hallucinations of evil smells, of nasty tastes, and of voices saying obscene words. They are all compromises by the super-ego, compromises which allow certain emotions to reach consciousness and reality, the emotions being attached to the symbols instead of to their real object.

Symbolization as a short circuit is essential to progress and to a full appreciation of our complex civilized life. But the values thus symbolized may easily become obscured in a maze of unrealities and the symbol itself become an end rather than a function. This may happen especially through overcondensation of the symbol, as is met with in the multitudinous rites and vestments of certain religions. Another pitfall of symbolism is the displacement of emotions inherent in one symbol to another which merely resembles the former either in outward form or in content. Thus, an obsessional male of fifty felt that he must walk slowly and carefully lest he exhaust the energies accumulated overnight. On analysis it was discovered that his first wife, whom he loved and admired, was forced to walk this way because of a diseased myocardium of which she died. His second wife had caused him much unhappiness and suffering; but rather than own this to himself he transferred his conflict to an obsessional type of gait symbolic of his first wife's suffering.

For wealth of symbolism phobias come second to dreams only, and they must always be subjected to translation before they can become at all understandable. A fear of pillows and cushions is nonsensical only until its true meaning has been analysed; the clergyman thus afflicted was, in fact, afraid that he might stifle his wife, but the existence of this impulse only came to light after some fifteen therapeutic sessions. The symbolic objects had become the unconscious carriers of a fear which should logically have been attached to his own strong desire to be rid of a wife who had become a crippled invalid.

DISSOCIATION

When repression fails to solve the problem of conflicting trends the psyche may employ the mechanism of dissociation, whereby the conflicting elements are kept separate. Failure to repress some intense emotional urge or some guilty desire, therefore, constitutes the reason why dissociation is called into action. The urge, having escaped repression, and having invaded the conscious realm, is now disowned by the psyche ; but since it has irrupted into consciousness the mere denial of its ownership is insufficient to protect the psyche against its activities. Consciousness, in certain types of personality, then resorts to the expedient of splitting itself into two (or more) parts, one of which enters the dominion of the disowned urge, whilst the other constitutes consciousness proper. Furthermore, the two parts proceed to lead, for varying periods of time, independent existences in complete unawareness of each other.

We may say, therefore, that dissociation consists of the isolation and functional independence of a fragment of the personality. This fragment may sometimes operate side by side with conscious activities, in which case we have the phenomenon of a person performing two actions at the same time. Thus a young woman of twenty-four whose fiancé is in India wrote a letter to him whilst at the same time giving an account of her own life in ordered sentences and in answers to questions ; here the writing was performed automatically whilst the bulk of her conscious mind answered questions as to dates and events in her past life. The stream of consciousness was divided into two independently active parts, each unconscious of the other, and the reconstituted personality afterwards showed complete amnesia for having carried out this dual task.

From the physiological standpoint we may describe the process as a splitting of the cortical level from the lower levels, with consequent release of those impulse-governed autonomic and reflex mechanisms outside the control of conscious correction. It is as if two levels of attention had come into being, or two separate thought systems, in the same person at the same time.

At other times, instead of the two streams being activated at one and the same moment, the split-off fragment or group of thought processes suddenly begins to function as a unitary whole and the bulk of the personality proper loses its identity and independence, being dominated by the overwhelming affective drive of the dissociated complex. Of this order are fugues, somnambulisms, alternating (or multiple) personalities, and post-hypnotic automatisms. In these cases, again, reproductive amnesia covers the event.

Case.—A young man, on the eve of his final examination, disappears from his room in college leaving a note saying that he will be back in an hour's time. Five hours later he wakes up from a sound sleep on a couch at his married sister's home nearly a hundred miles away. His distress and perplexity were genuine, and his amnesia covered the whole episode from the time of closing his room door to waking up at his sister's house. The motive underlying the fugue was discovered after some twenty analytic sessions: he hated and feared his father, and it was into the latter's business that he was to be drafted on completing his university course. Although this bare outline merely represents a fraction of the material brought out by the analyst, it will be seen that this man's fugue was an attempt, though a psychologically unhealthy one, to solve an affectively important problem.

When we say that the split-off element dominates the personality we mean to imply that the personality as such ceases to function, somewhat abruptly, and is entirely replaced by the split-off element. The latter has now assumed full control of the person's thoughts, affects, and activities, and expresses itself in a fully independent fashion. A person under the autonomy of such a dissociated complex may behave in a perfectly rational and normal manner, and his behaviour only seems abnormal to observers who knew him before or to those who see him when the period of dissociation comes to a sudden end.

The types of dissociation which conform to the description given above—that is, a sudden shift of consciousness during which behaviour undergoes a qualitative alteration and which is followed by amnesia—are fugues, somnambulisms, trances, double personality, automatisms, and hypnotic states. Some writers have also included bouts of trigger-like irritability,

emotional changeableness, feelings of unreality, hallucinations, cataleptic and narcoleptic phenomena, under this heading. In the opinion of the writer these phenomena, for the sake of clarity in classification, should be assigned to a separate clinical group.

It will now be seen that Freud's theory of repression represents a masterly attempt to explain why amnesia occurs at all; Janet's theory of dissociation merely describes, somewhat superficially, a clinical manifestation. The two theories are not conflicting; they are used to explain different aspects of the same clinical entity.

CHAPTER VI

THE PSYCHONEUROSES

I. INTRODUCTORY REMARKS

UNDER this heading we mean to group all those aberrant forms of thinking, feeling, and acting which may be called responses to maladjustments, or defence mechanisms against frustrations, or compromise symptom formations, and which are marked by a return or adherence to psychic infantilism, by preservation of the personality, and by easy accessibility to insight.

We concede that such a prolix definition is descriptive rather than definitive. At the same time it must be remembered that it serves its purpose, which is the establishment of a working distinction between the two great psychiatric categories of the psychoneuroses and the psychoses. There are other differences which are referred to below. The two clinical entities are distinctive and distinguishable, even though both may be found in one and the same patient, and the distinguishing marks are to be sought both in the psychopathology and the symptomatology.

For well over a century the causation of the psychoneuroses has been the subject of much research amongst neurologists and psychiatrists until Freud formulated his theory of unconscious motivation, of the active presence of inborn urges and the persistence of past experiences in spite of those repressive forces unconsciously and automatically brought to bear upon them by the psyche. The psychoneuroses are the outcome of the great dilemma confronting the human species since the dawn of civilization: repression is necessary in order that civilization may be worth keeping, whilst at the same time urges and desires are striving for direct expression and satisfaction. These urges and desires are by Freud subsumed

under the single term sex, which term therefore of necessity acquired a more extensive denotation and, in fact, a greatly altered connotation. Polemists in the field of Freudian sexology have apparently chosen to lose sight of this fact.

A psychosis in full symptomatic bloom does not often raise the question of differentiation from a psychoneurosis. On the other hand, a well-developed psychoneurotic state may present serious diagnostic difficulties, and, on first contacts, give the observer the impression that he is in the presence of a psychosis. We use the word impression advisedly, but in spite of the many distinguishing features of the psychoneuroses we cannot satisfactorily explain why it should sometimes suggest the major type of mental illness; nor why the major does not so often suggest the minor. When a patient states that radio-location registers everything that she says and does, wherever she goes, and that sooner or later she will be accused of high treason, a differential diagnosis between a psychosis and a psychoneurosis does not arise. When a man seeks advice because he is afraid of killing his wife with his razor, and looks distressed, leaning heavily on his wife's arm, we should need very little more evidence before we rule out a psychotic state and diagnose the condition as a psychoneurosis. But between these two well-marked types there is a multitude of less defined cases. And it is here that we must beware of facile impressions and look for guidance to points of differentiation.

II. GENERAL FEATURES OF THE PSYCHONEUROSES

The following characteristics relating to the psychoneuroses should always be carefully assessed, whilst one should, at the same time, bear in mind that they are intimately inter-related:

1. *The personality remains essentially intact*: Although one sometimes meets with obsessional-compulsives who show an appreciable degree of self-neglect, it is true to say that in the psychoneuroses, generally, no degradation occurs, nor is the person, as known to his friends and relations, altered to any extent. A manic, a depressive, a schizophrenic, a dement —all these exhibit alterations of varying depth in the personality, affecting the ego-consciousness, the temperament, and the impulsive life, even to the point of utter dilapidation. But

in the psychoneuroses one never meets with a true hypertrophy of any of the personality characteristics because the adult neurotic succeeds in remaining himself and does not allow any one component of his make-up to overshadow the others. On the other hand, the cyclothymic psychotic has failed to stem the overwhelming flood of his emotional needs; the schizothymic psychotic loses his personality features in the turmoil of an overpowering sensitivity or in emotional apathy; the paranoiac has blurred the clear outlines of his personality under the insistent weight of suspicion, jealousy, or ego-inflation.

In all cases an investigation of the personality as it was before the illness will prove of assistance, and therefore the patient's friends and relations should be interviewed. Indeed, in the absence of such third-party information the finer changes of personality will escape the clinician.

2. *Reality appreciation is good*: Contact can always be made and maintained for the space of long interviews with the psychoneurotic, because his illness is a partial one—a focal infection, as it were—which he himself is able to sidetrack in favour of reality preservation. His herd sense and his degree of socialization therefore suffer little. His associations, likewise, are pertinent and thematic, and free from the bizarre products of the psychotic in whom complexes have assumed autonomous and dictatorial powers over his thinking. The compensating mechanisms of the psychoneurotic are more in the nature of exaggerations, and their nexus with the realities never snaps though it may appear tenuous. His projections, for instance, are in most cases nothing more than the expression of grudges against his surroundings, lacking solidity, yet passing muster before the uncritical eyes of his milieu. An elderly carpenter loaded the doors and windows of his workshop with locks, bolts, bells, and other devices because someone was interfering with his chisels; a young student blamed in turn his school, his parents, and his examiners for failing his finals. The falseness of the statement in the former case was easily demonstrable; the latter was more difficult because so much nearer to reality. The former possessed the marks of a true delusional formation; the latter

was annulled by psychotherapy aided by changing circumstances.

3. *Insight remains good*: Psychic illness implies the abrogation of insight, wholly or partially. In spite of his mentally crippled state the psychoneurotic is yet able to establish and appreciate the difference between his neurotic and his pre-neurotic self, and, given the appropriate circumstances, is willing to admit the shakiness of his arguments. The psychotic is either unaware of his abnormality, or on his guard against any direct attack upon his false beliefs; or so profoundly convinced of the latter that he will attempt to foist them on to others in the face of all criticism; or will even pretend to have discarded them in order to preserve his freedom and give himself further opportunities for self-vindication.

It is, nevertheless, seldom possible to be dogmatic about the presence or absence of insight, since it is always relative, distorted as it must be in some measure by either psychosis or psychoneurosis, especially under the powerful influence of affective factors. Also, patients frequently express the fear of going insane. Such a fear, more often than not, is a manifestation of anxiety hysteria or a depressive state; on the other hand, it sometimes represents insight into an incipient state of serious mental illness.

4. *There are other distinctions* besides these three major ones. Thus, both affect and conation remain fair; nor do we find dereism in psychoneurotic patients, their thought processes following certain logical lines. Again, the dream life of the psychoneurotic expresses his fears and wishes in a frank manner, whereas the psychotic's dream life presents in many respects a continuation of his waking life. Finally, though repression may fail, the return of the unconscious in the psychoneurotic occurs in such a guise as to be more or less acceptable to the ego; his symptoms are in the main defences against the release of bad objects from the unconscious, whereas in the psychotic they are of the nature of reactions to their release. By implication, therefore, the psychotic looks upon the returned bad objects as true elements of reality to which it is necessary to assume an attitude;

whereas the psychoneurotic, in accordance with his finer perception of reality, senses the danger to his security and to the integrity of his personality and sets in motion a series of defensive mechanisms such as fugues, amnesias, displaced fears and anxiety, obsessions, compulsions, all of which are means of screening the threatened return of the repressed bad objects.

III. GENERAL CONSIDERATIONS

The classification of the psychoneuroses has passed through many vicissitudes since the time they have occupied their own place in psychiatric study. Names and syndromes have come and gone, and confusion has given way to over-simplification. The present state of affairs will be brought out in the classification adhered to in the following pages.

The outstanding and distinctive mark of a psychoneurotic reaction is its dependence upon mental processes. A cursory glance at some of the personality and character manifestations will convince the observer, or at least make him suspect, that the surface behaviour of these individuals may find its explanation in the deeper levels of the mind, and that in these depths there has occurred a breach of unity. We are aware that many of their symptoms are somatic and could derive from somatic sources ; headaches, indigestion, insomnia, distension, migraine, palpitation, thermal disturbances, tension. But taken in conjunction with their behaviour homologues these symptoms lose their somatic distinctness, and the diagnostic emphasis transfers itself to such features as the subject's concern about his body, about the impression he makes on others, his persistent anticipation of failure, his reactions to failure, his lack of perseverance, his over-anxiousness, envy, and resentment, his moods, apathy and boredom, his unhealthy fantasies, his too high expectations of life, and so forth. The intimate relationship existing between the bodily and the psychological symptoms, and their ultimate derivation from unconscious, conflicting mental factors, constitute the fundamental tenet of Freudian psychology. We accept the theory that the conscious and the unconscious mental systems work harmoniously together ; if this were not so we should fail to reap the benefit

of former psychic acquisitions. Moreover, these acquisitions exert their influence upon our present behaviour without the necessity of evoking them into consciousness. Freud, therefore, sought to explain the complex conscious in terms of unconscious simplicity, since all cognitive and affective experiences must leave their traces behind them in a latent form, whether active or inactive. He proved by clinical experience that which Pavlov has proved by animal experiment : that neurosis is the result of a clash of opposing forces followed by the return of one of the repressed forces into consciousness in disguise. Failure of repression, then, brings about the symptom ; repression is not necessarily pathological, but its failure must be considered so. Psychic dynamism and the existence of an active unconscious are concepts entirely justified by Pavlov's scientifically conducted physiological experiments in which he studied the modifications wrought by past experiences upon reactions to sensory stimuli.

Psychoneurosis, then, is the outcome of unsuccessful repression ; and failure of repression occurs the more readily the stronger the affect attached to the offending and forgotten experience. It is this affect, and not the experience, which breaks the repressive bonds, and, being now freed from its original object, and unavailable for conscious formulation, attaches itself to a substitute object. The compromise thus reached constitutes the psychoneurotic symptom ; the ego had succumbed to the pleasure principle by resorting to the mechanism of repression, and now, with the failure of repression, the offending Id impulse inflicts upon the ego a retributive neurotic symptom.

The choice of symptoms is a sign-indicative of the particular individual and has its source in the multiformity of his experiential history, both psychic and physiological. The choice of psychoneurotic syndrome follows the same lines. Certain predispositions may exist : unusual strength of the instinctual impulses, a tendency to form unusually lasting attachments, the presence of such inhibitive factors as a sense of insufficiency, of inferiority, guilt, or shame. Amongst symptom-forming agents one may mention a hyperexcitability of the vasomotor centres. An acute illness often presents the

patient with a catalytic or precipitating event ; personal gain will then act as a symptom-fixing element. When we speak of personal gain we are using an elastic term ; it covers such motivation groups as conflicts, defence ; compensatory, escape, and adjustment mechanisms, which include striving for independence, guilt effacement, face saving, wish or anger satisfaction, concealment of inadequacy, martyr attitude, atonement, ego seeking, power seeking, burden dodging, pleasure craving, escape from defeat or from disagreeable reality, aggressive retreat, and others.

All workers are agreed on the significance of hereditary factors in the genesis of the psychoneuroses. It has been suggested that certain inherited patterns exist. Thus, those in whom the sensory element predominates would become the hypochondriacs or neurasthenics ; those with a predominating emotional element would develop into anxiety psychoneurotics or anxiety hysterics ; the dominantly 'thinking' types are the obsessive-compulsives ; whereas the hysterics are recruited from the predominantly 'acting' types. No simple Mendelian inheritance can as yet be postulated, the development of a psychoneurosis probably depending on a combination of a number of genes which, in different combinations, would not give rise to abnormal psychiatric states. Hereditary factors have been assessed at 54 per cent amongst parents and siblings of psychoneurotic patients.

During his childhood and adolescence the psychoneurotic exhibits certain behaviour and personality marks upon which a fairly definite prognosis as to future breakdowns may be based. Of these the most important are bed-wetting beyond the age of three or four, outbreaks of temper on being thwarted, obstinacy in the face of parental correction and punitive measures, frequent night terrors, multiple fears, thumb sucking, and nail biting. A child in whom any two of these symptoms are found may with certainty be said to be a prey to psychic conflict ; and such conflict presages the danger of a psychoneurosis later on. Asthma, urticaria, and stammering are in themselves indicative of an already existing psychoneurosis ; unless treated by psychiatric means they will establish themselves as adult psychoneurosis.

Later on in childhood and in early adolescence we find bad school and poor work records ; a shrinking from competitive activities ; facile physical responses to difficulties, such as headaches and gastro-intestinal disorders ; thermal disturbances ; faints.

Finally, only the most robust—the most perfectly integrated—personalities can withstand the psychic trauma of an unhappy home during childhood. To be sure, such children do not all develop psychiatric disorders, but they certainly provide society with its misfits, its malcontents, its parasites, its psychopathic personalities, its tragic lives, and pathetic failures.

IV. INDIVIDUAL SYNDROMES

A. NEURASTHENIA

An account of neurasthenia has appeared in text-books of psychiatry for generations past. Some forty years ago H. J. Berkley wrote about the Neurasthenic Psychoses, Neurasthenic Anxiety and Compulsory Ideas, Neurasthenic Heart, and so on. About ten years later Tanzi included under this heading a series of phobias and obsessions. About 1870 G. M. Beard used the word 'neurasthenia' in his treatise on this condition, and called it a modern and especially an American disease. In 1892 Hack Tuke described it as characterized by weakness, loss of power of resistance, and decrepitude. In 1911 I. J. Coriat classed it under the phenomenon of dissociation ; he held that "the two principal factors in its production were the emotions and fatigue", and also that "as in hysteria, there is a narrowing of the field of personal consciousness".

In order to explain the persistence of this tiredness—a phenomenon not in keeping with physiological laws—P. Hartenberg (1908) stated that the fatigue of neurasthenia was merely the consciousness of the muscular weakness of this disease, as if there were a tendency to repeat automatically the previous sensations of fatigue. T. B. Hyslop spoke of neurasthenics as exhausted individuals "who have run their course all too soon from too early and excessive use of functions which ought in the life history of the individual to have developed more gradually and at a later period". Later in

his *Borderlands* (1924) he refers to them as "this rabble of hysterics, neurasthenics, weaklings, and degenerates who have nothing (new) of their own to say". He, like other writers before him, calls it a disease of civilization, and one which is "likely to become more increasingly prevalent than any other clinical syndrome". Amongst its aetiological factors he mentions "over-pressure combined with defective bodily health leading to degeneration". In 1911 de Fursac and Rosanoff considered the study of neurasthenic states to "belong properly to the domain of neurology", and that "chronic exhaustion manifests itself physically by neurasthenic states".

During the past few years the vogue for neurasthenia has gradually approached its nadir. Some authorities place it under the heading of "Neurasthenic States" (Wm. Sadler), including fatigue neuroses, anxiety neuroses, sexual neuroses, occupational and traumatic neuroses, hypochondriasis, neurasthenia. Neustatter does not mention it under the Neuroses. R. V. Dicks finds room for it under the heading of Anxiety Symptoms. The recent literature on war-time psychiatric states gives us no indication of the existence of neurasthenia as a clinical entity. In one modern text-book of medicine the writers show no evidence that they possess a clear idea of the condition, having mixed up ancient and modern in such a way that the article reminds one of a blunderbuss.

Clearly, there must be an explanation for this rise and fall of a clinical description, whether it be neurasthenia, hysteria, appendicitis, uterine displacements, "toxic focus", or avitaminosis. Neurasthenia, if it ever existed as a separate clinical whole, cannot have disappeared irretrievably. In explanation we might posit two factors: one, that a constellation of signs and symptoms had been observed in certain individuals by generations of clinicians; second, that in the enthusiasm aroused by the newly discovered disease its name was forced upon any patient who could either not be given his rightful diagnosis or who showed any one of the major symptoms or signs subsumed under the new description.

It is inconceivable that so many experienced clinicians could have been deceived in their observations; and it is equally

certain that the disease, far from being increasingly more prevalent as civilization advanced, has in fact decreased in incidence *pari passu* with a finer accuracy both in diagnosis and classification. We may, therefore, expect that with a still greater refinement of methods neurasthenia will almost entirely drop out of our psychiatric nomenclature and will cease to be regarded as a disease *sui generis*. Meanwhile we shall briefly consider those manifestations which, if found conjointly, might justify a diagnosis of neurasthenia.

Symptoms.—Most striking among symptoms is the complaint the patient makes of feeling tired, all day and every day. This has been referred to as fatigue; but this term, with its mainly physiological implications, should not be used in this context, since the tiredness of neurasthenic patients has its origin in an emotional state and only secondarily reverberates along physical channels. The emotionally tired neurasthenic recovers temporarily from his tiredness under the stimulating influence of a sympathetic hearer to whom he will recount the endless chapter of his disabilities, enthusiastically and unsparingly. We are not here using a figure of speech; we mean to emphasize an important aspect of this symptom.

Next in importance is the patient's irritability, especially towards those with whom he lives. He is disgruntled and impatient, lacking the evenness of temper which readily allows for the mistakes of others. He may be described as militant and egocentric, too critical of the deeds and sayings of those around him, and projecting his own alienation from the world on to the world.

The neurasthenic complains of bad memory. He is probably too pre-occupied to register his impressions, besides lacking conative drive towards the acquisition of new knowledge or new experience. It seems as if his bodily sensations crowd out all impressions coming in from the outside world, and his mind concentrates on their possible import.

He externalizes his grudges against life in general by projecting them on to the somatic sphere, and this makes him essentially a 'martyr', but one who does not bear his immolation in silence. All his pains are exaggerated. He will

complain of pressure on the top of his head, of hypersensitive-ness of the skin, of burnings, tinglings, tenderness over the bones, loose bowels, pain on micturition, frequency of micturition, excessive sexual irritability, or impotence. He wakes up in the morning unrefreshed, and bedtime is his enemy.

Physically he exhibits fine tremors, increased deep reflexes, a diurnal variation in pulse-rate and blood-pressure, cold extremities, local sweating; sometimes photophobia, head noises, urticaria, dermatographia, and a host of gastrointestinal disturbances.

In dealing with a neurasthenic suspect it is well to look for foci of infection, for endocrine dysfunctions, for blood and metabolic dyscrasias. This is not a question of this or that school of thought but a matter of medical ethics, and a plain duty to the patient—a remark which is to be read as applying to the investigation of all mental illness.

Case.—A sallow-looking man of 50 had complained for the past ten years of constipation, an unpleasant taste in the mouth, continual tiredness, and a heavy weight on the top of his head. He had been married 25 years, but now felt that married life no longer interested him, though he still masturbated from time to time, because, as he put it, "a man needs some sort of outlet". He lived with his wife and daughter. For ten years he had haunted the surgeries of every doctor in the town in turn and had exhausted the patience of several hospitals, where every necessary test and investigation had been carried out. During this process he had lost his tonsils, his teeth, his appendix, and his hæmorrhoids. He ate moderately and slept well. He had done no work for some five or six years and spent his time at home, or walking the streets in search of an audience willing to listen to the endless and repetitive narrative of all his complaints. At home he was cantankerous, impatient, selfish, and imperious. His dressing table drawers were filled with half-finished patent medicines, plasters, and appliances.

For some unknown reason he had never been referred to a psychiatrist, and when eventually his relatives insisted on a psychiatric opinion he ceased his visits as soon as the therapeutic interviews began to touch upon his inner life.

No aetiological factors of any prominence have been put forward in explanation of the genesis of neurasthenia. The theory of overwork should be dismissed as being on a level with the wandering-womb theory of hysteria.

The psychopathology of this syndrome has been the subject of much speculation and theorizing. Freud held that it was intimately bound up with the practice of masturbation. Considering the generality of the practice and the rarity of the syndrome we find it difficult to accept this explanation as it stands; perhaps, as some derivative theory asserts, we should postulate such an extra factor as conflict about the habit or conflict added to the relinquishing of the habit. In the pathogenesis we must keep in mind those two salient aspects of the human psyche: the ego-ideal and sex. The neurasthenic feels defrauded of either or both, and his reaction is loud wailing against the world and a dramatization of the ego. Such an emotional upset will cause physical disturbances, upon which the patient consciously reflects and about which he arrives at erroneous conclusions, ending up with a half-formed conviction that he is suffering from real diseases. His tiredness is the direct result of the emotional conflict going on in him from day to day, and unlike the hysteric, in whom a solution is reached and an inner peace declared, the neurasthenic is left with his conflict, its tension and anxiety, unconsciously focusing his energy away from it and centring it on his body. The conversions in the two types are counterparts of each other, but with, in the neurasthenic, the interest directed to the body as such, and not, as in the hysteric, with some particular organ in close psychic relation to the outer world. Difficulties in potency may be linked up with anal and oral complexes, with aggressive and also homosexual components in the personality.

Treatment.—This should be carried out along general psychotherapeutic lines. These consist in the main in obtaining a full account both of historical experiences and emotional responses to those experiences. Secondly, we should investigate the patient's attitudes towards his family and towards his entourage generally. Finally, linkages must be discovered between early experiences and presenting symptoms. Freudian analysis may be found difficult because of the neurasthenic's extreme narcissism which seriously militates against the necessary transference being established. During the course of the treatment masturbation will surely be mentioned, and

the patient must be given a reasoned and unbiased explanation of this habit, its universal distribution, its harmlessness when kept within certain generous bounds, its physiological necessity in most instances, and the importance of divesting it from guilt. Infinite patience will be required in listening to the patient's interminable outpourings, his monotonous repetitions, his implied assumption of uniqueness. Even then we shall not often be rewarded by a cure or even a partial reorientation of his drives; especially gloomy is the outlook in chronic cases and in those who have invoked their multiform symptoms in order to achieve some purpose, whether conscious or unconscious.

Apart from psychotherapy, prolonged rest and graduated exercises have been advocated; the rationale of prolonged rest is not clear, nor has it ever achieved any striking results; graduated exercises are of very definite benefit.

Finally, it must once more be emphasized that the presence of physical illness should be excluded, especially diabetes, early nephritis, and early arteriosclerosis.

B. HYPOCHONDRIASIS

A persistent and anxious attention to one's body and its functions is, like neurasthenia, a part-syndrome. It is inserted here merely on the grounds of the mono-symptomatic likeness to the former condition.

In minor degrees it manifests itself as an exaggerated concern with dress or cosmetics, or a too great interest in athletics as a means towards "keeping fit", an over-rating of "perfect health"; among the lesser hypochondriacs we may also class the vegetable, water, sun, and fresh-air fanatics, the anti-draught and pro-flannel campaigners, and the laxative addicts. Further up the scale we find those individuals who complain of fixed pains with much dramatization, and in whom we often discern some depression and anxiety, and a high suggestibility in relation to disease. Unlike the neurasthenic or hysteric, the hypochondriac is seriously concerned and sometimes expresses despair, whilst relating his aches and pains; true depression is never far removed.

A conviction of some bodily ailment in spite of all the evidence against its presence easily shades off into a delusional belief. We meet with hypochondriacal elements in involutional melancholia, depressions, schizophrenia, and long-standing anxiety states. It is not infrequently ushered in by an illness, the patient being assailed by doubts as to his recovery.

The hypochondriacs should be classed among the psychologically immature, selfish, and self-centred people. They appear to be overloaded with narcissistic libido, and their symptoms take on the value of their own sex organs. Personality conflicts are expressed as bodily symptoms, projected upon somatic areas; from these they are returned, no longer as evidence of intrapsychic conflict, but as proof that the soma is at fault, the whole mechanism remaining unconscious. The libido, therefore, which should be distributed both somatically and psychically, has passed over to the soma in a psychic form. The patient now adopts a mental picture of his body which becomes the scapegoat and has to carry the burden of the conflict, such as a homo-erotic or an Œdipus trend. Psycho-analytic derivatives suggest that the hypochondriac has a fear of the injurious effect of the sexual act, there being present an overwhelming sex-lust and an all-embracing sex-dread; that his symptom is a substitute for a sexual fantasy and a retribution on the principle of the *lex talionis* for perverted sexual desires.

In hypochondriasis sensations are falsely interpreted in the cortex, or actually originate there. All painful sensations must be in fact true physiologically, but it is the threshold of consciousness which decides to what extent the pain shall be true, more pain being felt the lower the threshold of consciousness, and vice versa.

Treatment.—The treatment consists, in the first place, in a thorough and detailed physical examination, once only. The psychiatrist must listen attentively to the full chapter of complaints, then try to correlate their first manifestation with a specific situation. Finally, he must help the patient to re-arrange his life's routine on common-sense lines as to health, work, and play, to learn to disregard sensations, and to learn the value of time.

C. HYSTERIA

1. Historical Note.—When about the year 1860 Charcot declared that the individuals who could be hypnotized were subject to fits of hysteria he unwittingly laid the foundation stone of the psycho-analytic school, whilst equally unwittingly delivering to the scientific world an inverted truism. Some thirty years later Janet succeeded in recovering forgotten material in hysterics under hypnosis and in making them carry out actions on waking which had been suggested to them during the hypnotic state. It was Charcot's insistence upon the sexual element always to be found in hysterics, if looked for, which drew the attention of Freud to this condition. He and Bruer used hypnosis together with the method of allowing the patient to talk out his troubles. Whilst these four men were making an attempt at elucidating a psychopathology of hysteria, the psychiatrists of that period were still lumbering away at their physiological and somatic theories; the majority, indeed, stopped short at descriptive accounts.

From Giesinger in 1867 to de Fursac and Rosanoff in 1911 we find descriptions of hysteria tallying with each other in various text-books remarkably closely. Except for Maudsley (who in 1879 mentions the words "not voluntary", "not conscious"), de Fursac, Rosanoff, and Tanzi (who bring in the words "subconscious" or "not conscious"), and Kraepelin (who in 1906 uses the term "involuntary"), none of the undermentioned writers on the subject hints at the question of an underlying psychopathology. The symptoms as described by these writers (Giesinger, 1867; Maudsley, 1879; Bevan Lewis, 1889; Hack Tuke, 1890; Coulston, 1896; Paton, 1905; Kraepelin, 1906; Tanzi, 1909; de Fursac and Rosanoff, 1911), taken as a whole, include such terms as mania, melancholia, and dementia. We know now that these conditions do not belong to the essential body of hysteria; but they may, and do, occur in hysterical persons. The same applies to hallucinations, delusions, and deliria, all of which figure largely in these accounts. Again, the latter force upon one the inference that the hysteric is malicious by design, deceiving, simulating, morally perverted, jealous, erotomanic, and peculiarly prone to diseases of the genital organs.

The descriptions then proceed along lines more familiar to present-day workers. Thus, most of these authors are agreed upon the frequency of amnesias, a desire for self-display and sympathy, suggestibility, somnambulism, dream states, automatisms, somatic manifestations in the absence of organic disease, much emotional show, periods of depression, and an indifference to their many and varied disorders. Great stress is also laid on abulia, disturbances of attention, irritability, and sensitiveness, these four elements entering into almost every account; the hysteric's intelligence would appear to vary between "great liveliness of intellect" and "only a little above the high-grade mental defective". More modern conceptions are referred to by such unequivocal statements as that the patient commits errors unconsciously; that the bodily disturbances are produced by ideas having the force of sensations and can be ended by psychical influences; that they are involuntary effects of excited sensations; and that mental representations of the patient's body appear in consciousness with great intensity.

2. Descriptive Account.—The mimetic genius of the hysteric covers practically the whole range of somatic and mental medicine, and to catalogue all symptomatic permutations and combinations would be wasteful of time. On the whole, he favours the pseudo-neurological outlook on anatomy, simulating both sensory and motor anomalies; and the topographic distribution of his symptom is strictly in accordance with his own private notion of anatomy. This factor forms an important diagnostic distinction between the paralysis and anæsthesia of the hysteric and those due to organic pathology. Only a thorough neurological examination, however, will warrant a diagnosis either way. The same applies to such symptoms as aphonia and tics. Indeed, it must be emphasized that no psychiatrist—or analyst—is qualified to carry out his craft unless he also possesses a sound working knowledge of neurology and the general practice of medicine.

The following are the more important hysterical simulations:—

Paralyses.—The reflexes are seldom asymmetrical and rarely diminished, provided relaxation of the muscles is obtained;

plantar reflexes remain flexor; ankle-clonus does not occur. There is neither muscular wasting nor reaction of degeneration except in long-standing cases. Often protagonist and antagonist contract together when the patient is asked to move the affected limb.

Case.—An unprepossessing girl of 17 was given a lift one night by a lorry driver and safely delivered to her parents. The driver was a respectable, middle-aged, married man, and no question of 'unwanted advances' had arisen on the journey. The next day the girl had developed a right-sided paralysis of arm and leg. After all the preliminary medical, surgical, and neurological investigations had been gone through she settled down to a perfectly composed and unemotional life of invalidism, and became the subject of interest, care, and attention of both her family and the neighbours. She lent herself 'on show' to several hospitals and doctors, and underwent hypnotic suggestion on two occasions, during which her paralysis had successfully been 'suggested' on to the left side and had, equally successfully, been transferred on to the original side by the girl's own unconscious desires and motives, within a few days of the hypnotic sessions.

On analysis, which lasted for some four months, the genetic factors came to light, laboriously and with much difficulty. She was the youngest of four children and also the least endowed, both physically and intellectually. Since early childhood she had played the more or less self-imposed role of Cinderella. Then, on the night in question, she had, in her youthful fancy, fallen in love with the 'knight of the road' (as she romantically referred to the lorry driver), had realized that the position was hopeless and intolerable, and had compromised with her conflict by unconsciously staging a paralysis.

Sensory Symptoms.—Loss of sensation usually possesses a sharply defined upper border, ending like a band around the limb at the joint, and not tailing off gradually as in such conditions as subacute combined degeneration and polyneuritis. Moreover, in spite of complete loss of postural sensibility and of appreciation of passive movement, the patient exhibits no impairment of co-ordination.

Rigidity.—This increases in degree with every effort of the examiner to move the affected part; the emotional show becomes more intense at the same time.

Involuntary Movements and Disorders of Gait.—These always appear grossly exaggerated, and especially so when the

patient is being watched. The ataxic hysteric, for instance, falls down frequently, without hurting himself, for the benefit of an interested party or audience.

Fits.—Here we must consider the choice of dramatic setting ; the absence of painful injuries ; the emotional genesis ; the more or less articulate shouting as opposed to the explosive cry of the epileptic ; the random, quasi-purposive movements ; the absence of a clear-cut beginning and end of the fit, and the bizarre march and spread of the movements. It must be remembered that hysteria and epilepsy may co-exist ; so may hysteria and disseminated sclerosis.

Amongst other simulated symptoms one may mention blindness, double vision, restricted fields of vision ; œsophageal spasm, vomiting, anorexia nervosa, abdominal catastrophies ; renal and bladder dysfunctions ; vaginismus, frigidity, impotence ; tachycardia, aphonia, skin eruptions, deafness, and respiratory tics.

The *differential diagnosis* sometimes presents serious difficulties. Any suspected symptom must be viewed in the light of the patient's personality and of any manifestations which bear the unmistakable imprint of authentic hysteria. Again, the possibility of a genuine hysteric producing a genuine symptom of organic import must not be overlooked. Major hysterical crises and the *mise en scène* of some dramatic illness are nowadays of comparatively rare occurrence, having been displaced by more subtle exhibitions. It is not the somatic symptomatology which is important, but the individual personality and individual reaction. The hysteric's reactions are essentially dissociative-dysmnestic substitutions, behind which motivation is always to be found. Hysteria is the extravert's neurosis ; these patients live in excessive rapport with their surroundings, constantly appealing for interest, always aiming at producing impressions, easily suggestible, pliable to another's influence, very communicative, even to the point of fantasy and lying. They resort to projection with uncommon ease ; tend to identify themselves with all sorts of persons and conditions ; indulge overtly in fantasy weaving ; are emotionally infantile, especially within the walls of their own homes, and are subject to mood swings of the

manic-depressive type but of shorter duration and of faster rhythm. It has been said that the depth of a hysteric's feelings bears an inverse proportion to the intensity of his dramatizations.

From this short description we may abstract three major clinical marks: (a) The physical symptom; (b) A calm indifference towards his state once the symptom is established; (c) A tendency to dissociation.

Dissociation.—The psychiatric meaning of the process of dissociation has already been referred to. Here we will describe the various ways in which this psychic dynamism acts. A great many symptoms have been subsumed under the concept of dissociation; in fact, we might state that it is at the bottom of all abnormal mental states. The following are some of the varieties (Karpman) that have been described; the amnesia which we have assumed to be an integral part of the process of dissociation is used as a criterion. Not all these are the prerogative of the hysteric; psychotics and epileptics resort to the mechanism too.

i. *Twilight states*: These include reveries, ecstasies, and trances. They occur with suddenness after an emotional experience in an affectively labile person; last from minutes to days; and end as abruptly as they begin. They consist, like dreams, of hallucinatory images, but possess far greater vividness and reality, and are followed by complete or patchy amnesia. They represent either an escape from unbearable realities or the satisfaction of a wish, and they have been favoured by saints and sinners throughout the ages.

ii. *Fugues*: Here again there is a sudden break with the realities of the moment. The patient steps out of his troubles and enters another world, using locomotion, and being intent on establishing distance in space between the difficulties of his present surroundings and the world of his repressed wishes. Although this would appear to be the more complete form of the fugue, it frequently happens that the patient, having walked out of his dilemma, now feels the impulse to go on wandering without purpose or object. During the fugue there occurs clouding or narrowing of consciousness, and the period before its onset is marked by some restlessness and depression;

on emerging from this state there is amnesia, complete or partial.

Stengel has suggested that a fugue is a symbolic suicide, and that it is frequently associated with a strong parent attachment and an unhappy childhood.

iii. *Somnambulisms*: A train of activity is initiated during sleep by a split-off part of the personality and carried out automatically, and is followed by complete amnesia. The whole train of experiences during this state assumes the character of hallucinations. Where the symptom is indicative of hysteria we shall discover an unconscious motive, and much information about possible motives may often be gathered from the activities of the somnambulist. They occur most frequently in children, but their import remains the same: we are in the presence of an unhealthy attempt to deal with a conflict, whether deep or on the surface, and therefore the symptom represents a factor of prognostic importance where the possibility of future neurosis is concerned.

iv. *Double personality*: The patient's personality as it usually appears to his friends and relations suddenly breaks off and is replaced by a second (and sometimes by a third, or even a fourth), each remaining in ignorance of the other. Each personality acts in a reasonable way within the compass of its own realities. The mechanism is the same as for all other types of dissociation, except that here it is more completely enacted and of longer duration.

Other types of dissociation described include sudden angry explosions, automatic writing and speaking, perfect memorizing of whole days' experiences, automatisms, and feelings of unreality leading to illusions and even hallucinations.

Dissociation appears to be physiological as well as psychic; that is, between the central nervous system—the cortex—and the autonomic. The conflict is enacted then between the unconscious and the autonomic nervous system. Or again, between the reality stream of thought and the autistic stream. Certain concomitant features apart from amnesia already referred to, are *Déjà Vu* (feeling of familiarity) and Depersonalization (feeling of strangeness). Epileptic absences and narcolepsy, dreams, hypnosis, and sleep, are described elsewhere.

Some writers use the term hysteria in a generic sense, and they classify under the heading *Hysterias* the following types (Sadler): (a) Anxiety hysteria: anxiety neurosis plus neuromuscular paroxysms. (b) Conversion hysteria: imitations of disease without anxiety. (c) Episodic hysteria: sensory, motor, temperamental. (d) Dissociations.

Freud recognizes two types only: (1) Conversion hysteria; (2) Anxiety hysteria, in which one or more unreasonable fears occur, accompanied by anxiety, the fears acting as a façade for unconscious wishes and representing in the last analysis a fear of the overpowering strength of the patient's instincts. Morbid fears are described later on under their own heading. Although the writer agrees with the term anxiety hysteria on psychopathological grounds, it is felt that for descriptive purposes phobias are more conveniently dealt with apart from hysteria proper, and under the heading of Anxiety Hysteria.

Traumatic Hysterical Psychoneuroses.—Apart from the physical conversions and the psychic dissociative symptoms already referred to, mention must be made of traumatic psychoneuroses, since they are frequently of hysterical type, though sometimes of the neurasthenic variety, and quite often their symptoms partake of both. Of the hysterical traumatic type are the Ganser Syndrome, Hysterical Puerilism, and the Pseudo-dementia of Wernicke. The Accident Neuroses in which symptoms directly due to the accident are perpetuated, will be dealt with later.

Ganser Syndrome.—In this state we find once more a mimicry of a morbid psychic condition according to the patient's private notion of that condition. He imitates what he conceives to be the stupidities of a mental defective or an insane person, behaving in a childish way and talking in a rambling haphazard fashion. Whether this is to be looked upon as malingering pure and simple or as a true symptom is not of great importance; a person who resorts to such a syndrome at all must be declared to be at least psychologically abnormal and he will sooner or later show other signs of the hysterical make-up. Moreover, the syndrome is easily diagnosed; the motive is superficial; the state of consciousness never more than approximates a mild delirium, or a rather transparent

twilight state. Though most often described as a prison psychosis in which the patient assumes the outward signs of a psychosis in order to evade legal responsibility and punishment for some criminal act, it is not peculiar to such circumstances. The writer has seen the syndrome exhibited by a patient admitted into a Mental Home on a voluntary basis.

Case.—A single woman of 48 was admitted because her relatives could not cope with her screaming and wandering at nights. These ceased on admission, but were soon replaced by silly behaviour in front of others: she would quietly go on her knees, whisper prayers to God and Satan, asking of both forgiveness for her sins, roll her eyes Madonna-fashion to heaven, and gently touch the hem of the garments of those around her. On being asked how much 6 times 6 make she would say 12; her age would be 58; 97 from 100 would be 103, and so on. Yet all this completely vanished on being handled in a way which utterly ignored such behaviour. When alone she wrote letters, correctly spelt and well composed, and knitted garments for herself. Only an audience worthy of her theatrical productions would bring out her 'symptoms of insanity'. The motive was a desire to prove to the world that, since she was insane, she could not be held responsible for having carried on an illicit love affair with a married man. Her symptoms vanished entirely as soon as a compromise had been reached with her over-religious elder brother and the man in question had agreed to move to a distant town.

Hysterical Puerilism.—We have here a return, not to childhood, but to what the patient means to represent as infancy. He has forgotten even the elements of reading and writing and cannot understand ordinary speech; walking and standing are carried out after the fashion of a one-year-old.

Wernicke's Pseudo-dementia.—In this condition the patient does not behave like a child but rather like the popular conception of a 'mad man with straws in his hair'. His actions are co-ordinated and, taken individually, would need adult experience to carry them out; but, taken altogether, they form a totality of purposeless behaviour.

Whether we shall call traumatic psychoneurotics malingerers is of purely theoretical and legal interest. The psychiatrist is safe in classing them as hysterics once he has excluded the possibility of the presence of organic dementia. There are ways and means of tripping up the monosymptomatic (coma,

stupor, speech defects, blindness, paralysis) malingerer and proving him such. But where motivation, conscious or unconscious, has forced a person to put on the mask of unsoundness of mind we should presume that we are dealing with a hysterical reaction, if not with hysterical personality. All such reactions must be assessed against the background of the person's mental history, distant and recent, and in the light of advantages gained, even though at first sight these might seem to be out of all proportion to the symptoms produced. What matters is that the sufferer, knowingly or unknowingly, considers his advantages worth the illness; only that which is nearest to the personality can be 'malingered'.

In those cases where malingering is suspected we may use certain criteria which, although not conclusive, may be regarded as presumptive evidence of its presence. In malingering, then, we shall look for a sudden onset; there is no prodromal restlessness, insomnia, irritability. The symptoms are related to the actual momentary situation whose difficulties it is planned to escape. These symptoms are much overdone, produced to order, and variable, and they bear little resemblance to the actual psychoses or psychoneuroses; they usually disappear when the patient imagines that he is not being observed. He freely admits his delusions and his insanity, and does not refuse food for long, nor does his insomnia extend over more than two or three nights. He shows no ill health. His incoherence cannot be sustained without much repetition. Finally, unlike the neurotic, he resents being examined.

From the medico-legal point of view, it is unlikely that a diagnosis of hysteria would in any way distort the judgment of the court in favour of an evildoer; society cannot be expected to pay for the behaviouristic experiments of the so-called malingerer, of the hysteric, or of the psychopathic personality.

Malingering will be referred to again under Accident Neurosis.

Of far greater consequence is the timely recognition of an organic psychosis where the symptoms are at all equivocal. Apart from positive physical findings the following points favour a diagnosis of an organic psychosis: a gradual falling

off of general and business efficiency, a deficit in the power of judgment, a diminution of retentive capacity relating to recent events, intactness of memory for childhood and early adulthood, changes in the personality characteristics dating back some weeks or months before the final breakdown ; headaches, vertigo, ataxia. One must, for example, remember that the backache may well be an arthritic condition of the spine ; headache, a result of hypertension ; loss of memory and confusion, an ambulatory case of meningitis ; convulsive disorders, genuine epilepsy ; and so on. Such instances probably represent some 4 or 5 per cent of all cases diagnosed as neurotic.

3. Aetiology.—There is evidence to show that hysteria is linked via heredity to schizophrenia, epilepsy, and psychopathic personality. Inherited constitution, plus unsuitable upbringing, are the two main aetiological factors. To this must be added the fact that educational deficiency encourages the formation of hysterical reactions. What the patient has seen happen in his childhood home will be a potent determinant of the manner of his future psychoneurosis. Early conditioning plays a part also in determining its channels. Perhaps there exists an organ abnormality, a general inferiority in physique, or a conflict, or an accident, or an illness. These early handicaps are calculated to attract parental care and devotion in greater measure than would otherwise be the case, and this surfeit of attention will tend to intensify the desire to be and to remain in the centre of the stage.

4. Psychopathology.—When Janet stated that hysteria implied a contraction of the field of awareness, he was describing, not explaining, a clinical condition. He speaks of psychic tension which, under the influence of emotion, becomes lowered, allowing the phenomenon of dissociation to occur, and a sense of inadequacy to be felt.

Bernheim and Babinski looked upon the hysteric as a highly suggestible individual. The truth of this assertion cannot be denied, but to say that hysteria is wholly a matter of suggestion is unwarrantable, and quite inadequate as an explanation.

Binet held hysteria to be a question of double personality.

Dejerine described, but did not elucidate any cause for, the three major elements in hysteria as dramatization, dissociation,

and '*une belle indifférence*' on the part of the patient towards his symptoms.

Kretschmer gives an account of the physical processes involved. Physical symptoms of the hysterical kind, he states, are conversions carried out via the autonomic nervous system. As in schizophrenia we find earlier or atavistic modes of expression, such as verbigeration and stereotypy, which are sometimes met with in hysterical twilight states. The whole psychic apparatus uses a lower circuit, which he calls the hypobulic-hyponoic mechanism. This comes into operation, for instance, when a powerfully affective situation gives rise to a motor storm which, in its primitive expression, is as undifferentiated as the random flutterings of a trapped bird. Negativism and blind obedience likewise use this lower circuit. The autonomic system, dissociating itself from the higher cortical layers, assumes command in moments of stress and unleashes an almost infinite range of activity, such as vomiting, pallor, tremor, cyanosis, and so forth. He agrees that purposiveness is an important criterion of the hysterical reaction. He speaks of purposive simulation, also of hysterical habituation—the will switches on an "occasion apparatus" (Bleuler), and this henceforth continues to function automatically, finally acting independently and free from the will and the higher inhibiting centres.

Freud sees in the hysterical symptom, whether mental or physical, the disguised expression of an infantile sex wish which has had to undergo repression by the super-ego. Repression, which acts automatically and unconsciously, comes into operation in the presence of intrapsychic conflict. But it is a mental dynamism which does not always wholly succeed in its object, and it is in these circumstances that the infantile sex wish attempts to regain entry into consciousness. The once repressed bad object cannot, however, be allowed re-entry into consciousness in its original form. The hysteric, faced in later life with a situation repetitive or reminiscent of the original childish Œdipus wishes, converts this regressive and unwanted wish into a symptom accessible to his ego. The dramatized version supplies the wish with a spurious gratification and at the same time draws upon its owner the

pity and attention of his entourage. It must be emphasized that neither the existence of the original Œdipus wish, nor its conversion into a visible symptom, is known or realized by the patient, nor does he realize that his symptom is in any way motivated.

The tendency to dissociate with more or less ease throughout a lifetime must be presumed an innate property, a permanent and intrinsic disposition of certain human types. The tendency is probably not capable of being removed, though the dissociated state or presenting symptom can be relieved. Other mechanisms at work are symbolization and conversion, both of which are signs of a regression to childhood where they may be considered as normal attributes of immaturity. To the hysterical personality, too, belongs a desire to be seen, a desire to exhibit the self, an unconscious thirst for sympathy side by side with a show of complete indifference to it. In women there is sometimes found a masculine ego-ideal with much over-compensation, and at the same time the contradictory desire to conquer her entourage with frailty and illness. Her ego-ideal is of the masculine heroic type, rooted in father fixation, which scorns dependence and softness, whilst depending for her power upon feminine weakness. The Dresden china type to whom the world is a coarse place and who zealously guards herself from all suffering and uncleanness will be found upon analysis to be suffering from deep-seated frustrations for which her extreme narcissism acts as a compensation.

5. Treatment.—By means of some form of analysis it is possible to bring into consciousness the repressed experience whose re-activation has caused the hysterical symptom. But unless such an operation is thorough and prolonged the symptom will merely be replaced by another one. Moreover, only by a prolonged analysis can we hope to establish a satisfactory insight on the part of the patient into those tendencies to dissociation and sympathy craving which lie at the foundation of his reaction to difficulties. He must be given the where-withal to understand intellectually and to feel emotionally that his attempts at adjustment are a form of self-deception, a mechanism of escape calculated to detract from, rather than

enhance, his ego-ideal. The technique involved in psychoanalysis and its derivatives cannot be discussed in any detail, and the reader is referred to the works of Freud, Schilder, Stekel, Reik, Ernest Jones, Frinck, and others.

Suggestion, with or without hypnosis, will certainly remove the individual symptom, but this will as certainly be followed by a successive crop of other symptoms, including the original one. The more heroic forms of physiotherapy aim at the same results. It must be added that these methods may have to be resorted to if quick relief from symptoms is desirable, or if the patient is not sufficiently equipped either intellectually or emotionally to understand the import of a re-educative analysis. This applies also to the method of persuasion, by which one induces the patient to believe that his lost function is in fact recoverable, and that he is genuinely mistaken in thinking that it is irrecoverable. The rationale of this method is somewhat difficult to see: the physician sets out to oppose his logically and scientifically founded belief in the patient's wholeness of body against the latter's illogical and unconsciously motivated feeling that his symptom is genuine. The few who are experienced in this method can claim the removal of a symptom. But should this in effect be called persuasion? Is it not rather a matter of repetitive and persistent suggestion? The refutation of the authenticity of a paralysis by means of a lengthy talk on its anatomico-physiological lack of foundation can only be successful in those instances where the motivation behind the symptom lies close to the surface. It also succeeds in those patients who have already begun to realize the futility of preserving a symptom and to whom, therefore, any kind of treatment does duty as an escape from this very symptom—and an 'honourable' escape to boot.

As we remarked above, the method of free association and dream analysis cannot be presented usefully in the restricted compass of this book, since one would have to cover the whole field of psychology as conceived by the depth psychologists of the past half century. We shall, however, endeavour later on to present an outline of the teaching of Freud and of his followers, both orthodox and dissenting, and this will inevitably

also include their approach to the treatment of the psychoneuroses.

Distributive analysis (Meyer) followed by synthesis constitutes another method of treatment. All the patient's complaints and symptoms are subjected to close scrutiny and analysis, and all possible lines of action are considered. In all cases re-synthesis, directed by the physician, follows the investigation.

But whatever line of treatment we adopt it is imperative that we should possess, besides a historical outline of the subject's life, a history of his past affective experiences, and a history of his physical illnesses. His present somatic state, it need hardly be added, must be searched with as much care as we spend on his psychic state, a physical examination in all cases preceding psychological treatment. It is necessary, too, to have a clear diagnostic formulation, and this will include the reaction type, the phase of the illness, and the personality setting.

6. Accident and Psychoneurosis : Malingering.—We distinguish between physical trauma and psychic trauma. The former constitutes an experiential fact in the life of the sufferer which is amenable to proof, frequently presents visible somatic changes of greater or lesser degree, and belongs to the order of things remembered with varying clarity and accuracy. Psychic trauma, on the other hand, belongs more often to the sphere of the unconscious, having undergone repression, or, if remembered at all by the sufferer, fails to be linked up in his mind with whatever neurotic symptom has ensued from it.

We are here dealing with physical trauma, and only in so far as it concerns the creation of a neurotic symptom after an accident, or the perpetuation of a symptom, directly caused by the accident, beyond the time boundary usually assigned to such symptoms. To a different order of traumatic sequelæ belongs the syndrome known as Post-traumatic Constitution, found especially after head injuries. It includes vasomotor instability, irritability, paranoid tendencies, amnesias, a greater sensitivity to the effects of alcohol, and others. But this subject will be referred to elsewhere.

Taking the accident neuroses in the general sense, we find one or more of several factors at work. Foremost of these is the problem of compensation: sometimes the patient needs or wants money; more often he merely feels the right to compensation, and to this felt right he adds certain paranoid trends towards the persons involved either in the accident or in the subsequent proceedings for compensation. Anticipatory anxiety, ostensibly related to the outcome of the proceedings or to the possible damage done to his earning capacity, is a frequent concomitant. From this follows a sense of insecurity which, only too frequently, possesses the outward features of a reactive depression.

Where a real physical basis is present, such as headaches, vertigo, vasomotor signs, a persistent ache, a stiff joint, we must determine whether, in spite of its presence, the patient is nevertheless exaggerating its importance, or whether he is not in fact simulating a symptom. And it is in these two eventualities that the question of hysteria or malingering arises.

In this work malingering is held to be, invariably and always, a part manifestation of the hysterical personality. The term is one which carries a definite legal implication and it should be discarded as a psychiatric notion. The somewhat heavily laboured distinctions which some writers have sought to establish between it and hysteria are an attempt to blend morality, imputability, and psychiatry. Such attempts fail to convince because the writers base their differentiation on the flimsy keystone of what they term "reflex hysteria" rather than consider the fact that in all cases the method of reacting to difficulties is the same: a psychologically immature way of gaining an advantage or of escaping from an unpalatable situation. The nature of this advantage is usually inaccessible both to the patient himself and to outsiders, and can only be brought to light by deep analysis.

The question is not whether a given symptom is malingering or hysteria, but rather whether it is to be looked upon as a sudden hysterical formation resulting from a long-standing psychic conflict, or a superficially motivated reaction on the part of a person who habitually hysterizes his difficulties. In

either case the pre-accident personality should be inquired into, as also the sufferer's intellectual equipment and general capacity for weighing up and judging complex situations.

A soldier who produces a limp on the day before a route march will be dealt with by appropriate, and necessary, army methods. This may be good and sufficient military law, but, unavoidably, it cannot be good psychiatry as well. The peculiar conditions of the moment are not, however, adequate scientific grounds for misdiagnosing the condition as malingering. Unusual circumstances do not make novel clinical syndromes. At the same time the disciplinary treatment meted out to the soldier may well remove his symptoms. But this does not invalidate the argument: any sudden or unexpected shock might succeed in removing a hysterical symptom but it leaves untouched the personality structure and the deeper motives which have called forth the symptom.

Or again, a man who dramatizes a sciatic nerve injury until full compensation has been paid is a hysteric. To relieve him of his symptom by means of a sum of money may be good finance, but it cannot be called psychiatry. The desire to obtain monetary compensation via bodily discomfort is an unimpeachable sign of the presence of hysteria. The attempt to draw a distinction between hysteria and malingering in all such cases is very like saying that a child's boisterous behaviour is wicked perverseness when it happens to be his mother's busy day, and merely naughty when she is not occupied.

These are theoretical considerations; they are arguments advanced in the interests of psychiatric integrity. But from them it must not be assumed that society shall be expected to bear the brunt of paying unending compensation to any hysteric who clings to his symptom. If in the opinion of an experienced and unbiased physician or surgeon the symptom is no longer founded on sound pathological grounds, then compensation should cease forthwith and the patient be given the opportunity of returning to his original occupation or to one for which he is considered more fitted. If he is also given the option of accepting psychiatric treatment for his hysterical manifestation full responsibility on the part of society should be considered as discharged, factually and legally. It is

admitted that the operative word is the word 'unbiased', but argument and dissertation on this point would lead us to the vexed question of Expert Opinion and Expert Evidence—as adduced by the contending parties—and beyond the scope of this work.

As a footnote to the above remarks it is interesting to note that the Courts now interpret the words "injury by accident" as including any physiological change which arises out of a person's employment and which causes incapacity to work. If, therefore, as a result of his work the onset of a morbid state is precipitated, or a pre-existing morbid state is aggravated, and the person is incapacitated thereby, it is held to be an injury by accident; and any effect an accident may have upon an existing disease or morbid state is regarded as a result of that accident in the same way as if it were a direct physical injury.

7. Anorexia Nervosa.—This condition was first described by Lasègue and Sir William Gull as 'Anorexia Hysterica or Nervosa'. Extreme emaciation, with much motor restlessness, are mentioned as being the major characteristics of the condition. Its age incidence was placed between 12 and 20; no salient post-mortem changes were found, and few deaths recorded.

Severe loss of weight together with a paradoxical persistence of motor activity constitute the diagnostic marks. Besides these the patient exhibits the usual objective attitude towards her symptoms typical of the hysteric who has succeeded in dissociating a part of herself from the total personality. Coincident with the starvation diet a low basal metabolic rate is found, but also a lowered 17-keto-steroid and anterior-pituitary-hormones output. Underlying the genesis of anorexia nervosa some psychic disturbance can usually be discovered on superficial analysis. Deeper still we shall come upon a protest or rebellion situation engendered by the girl's mother who, herself egocentric and neurotic, fails to supply her daughter with that sense of security so necessary at adolescence. Although it is true that the prognosis of the individual attack is usually good, some neurotic illness in later years may with certainty be counted upon.

In the later stages, when emaciation has become extreme and asthenia has supervened, a diagnosis of Simmonds's disease may suggest itself. In the latter condition we shall find a very low, or even absent, output of keto-steroids and of anterior pituitary hormones, together with a delay in return of blood-sugar to normal after injection of insulin (Frazer and Smith). It may be that adrenal cortex failure is the main factor in symptom production in hypopituitarism. The latter condition might, perhaps, ensue from a state of gross under-nutrition, whether this be psychic or organic in origin. It is nevertheless unlikely that under-nutrition from deliberate starvation alone should produce the symptoms described; a somatopsychic disturbance must be presumed to constitute the genetic factor of classical anorexia nervosa.

Treatment.—The treatment of anorexia nervosa consists in the removal of the patient from home, proper feeding, a re-orientation of her attitude towards food, and, in severe cases, the addition of anterior pituitary hormones. As soon as the patient has recovered from the dangerous phase psychotherapy should be instituted.

D. OBSESSIONAL STATES

1. Historical Note.—More than fifty years ago obsessions were classed under the heading of Cerebral Neurasthenia. They were described as mental symptoms of neurasthenia by Beard, and as a sign of degeneracy by Charcot and Magnan. It had previously received such designations as "lucid insanity", "insanity with consciousness, reasoning and impulsive monomania", "rudimentary paranoia", and others.

Stigmata of degeneration, presumed to have been found in many such types, included abnormalities of the genitalia, the head, ears, eyes, and the palatine vault.

In 1889 Falret reported before the International Congress of Mental Medicine upon the obsessional symptoms and epitomized current opinion upon their nature. They were, he stated, always accompanied with consciousness; usually hereditary, and essentially intermittent; they propagate themselves throughout the intellectual and emotional sphere; are always accompanied by distress, anxiety, and internal

conflict, by hesitancy in thought and action, and by physical symptoms of an emotional kind, but never by hallucinations. They preserve the same psychic character throughout, and they do not change into other forms of mental disease, nor do they terminate in dementia. They are sometimes complicated by delusions of persecution, or by delusions of anxious melancholia.

Regis (1890) approached a more enlightened conception when he described the obsessional state as a complex syndrome consisting of a fixed idea, an irresistible act, and an anxious emotion. But about that time, and before, all writers on the subject spoke of lesions of the will as being the root problem, the will having been assigned a place of its own in the cortical layers. Obsessional varieties were divided into three main categories: first, indecisions; second, phobias; third, irresistible impulses. Amongst the kinds of obsessionals they distinguished the realists, the metaphysicians, the scrupulous, the timorous, and the 'counters'.

2. Descriptive Account.—Although the heading Obsessional States does not accurately cover all the subject matter which follows, it has been used in preference to other nomenclatures because of its more widely familiar connotation, and because it emphasizes that aspect of the conditions which may be regarded as their nucleus: all the states here described, whether they issue in conative activity or not, possess the common characteristic of 'occupying' the sufferer's mind—with more or less insistence and to the exclusion of other thoughts. It is precisely this feature of 'occupation', more generally referred to as pre-occupation, which distinguishes this type of psychoneurosis from all others and which is the source of untold mental misery to its victim.

Some types feel impelled to carry out a certain action, against which compulsion they are all but powerless. Others are continually exercised in their minds with speculative thoughts about biology, religion, metaphysics, sexual matters, and so on. Yet others are obsessed with fears and doubts, these being in a way the opposites of compulsions. In phobias the formula runs: If I do this thing then something will happen. Whereas in compulsions we have: Unless I do this

thing something will happen. This 'something' usually involves an attack of anxiety. Frequently all the varieties of obsession are found in the same person: insistent fears, obsessive acts, continual ruminations, doubts of all kinds.

Case.—A man of 50 felt compelled to pick up white, loose stones in the road and to throw them a distance away; he would then wonder where the stone had come to rest, would go towards the spot where it lay, and, if he found it, would put it in his pocket and bury it when he got home. He doubted the accuracy of all his calculations at the works where he was employed and invariably had to go over them again and again. Answers to his questions had to be repeated two and three times lest he had misunderstood. He feared sexual intercourse because he feared the repeated loss of semen and was afraid that this would weaken him. His ruminations concerned the advisability of certain health exercises and the correct interpretation of biblical texts.

Modern clinical psychiatry accepts the existence of the obsessional personality. A representative type of obsessional would answer to the following description: He is occupied all day, either with thinking or acting, because he feels constrained to fill in every minute of his waking life with some kind of busy-ness lest he lose a portion of time. For him time has taken on a value in its own right, as if it were something tangible that had to be palpably filled in. He thus acquires the notion that time, if it is not to be lost, must be saved as a valuable object. Meanwhile he is busy killing it with planning how to save it. Another aspect of this excessive busy-ness is the notion that unless one is occupied one is likely to have an opportunity for getting into trouble, though this notion remains unconscious. He is afraid of idleness. He shows a stubbornness which can only be explained by the assumption that he must at all costs keep his own counsel safely to himself and that an opinion or imposition from outside would be fraught with the danger of doubt and uncertainty. In matters of money and sex he has rigid standards, although this does not prevent him from indulging in sexual intercourse in a calculated kind of fashion.

One can depend upon him to carry out a piece of work with the utmost conscientiousness and reliability. He is systematic and pedantic, these two qualities leaving the least possible

loopholes for uncertainty and doubt to creep in. The more strict types of organized religions and theologies fill up his spiritual moments, and act as a sure bulwark against his eternally conflicting doubts between right and wrong. He lives in a dangerous world and needs much assurance from outside, being prepared to embrace superstitions and to resort to ritualism of the most bizarre sort as long as these will protect him from guilt feeling and its presumed punishment. The danger consists, of course, in the strength of his own threatening impulses and instinctual urges; of his strong antisocial and even criminal tendencies, against which he sets up a compensatory wall of morals and religion, preferably of the cut-and-dried sort.

He is excessively tidy with objects outside himself, but not always so about his own person; object-care would seem to reduce the necessity for self-care; the time spent on objects is so much less time spent on dangerous self-attention. But this partial neglect of the self in no way detracts from the obsessional's own estimate of himself, his self-esteem being, in fact, rather hypertrophied.

The obsessional symptoms themselves appear foreign, absurd, illogical, and the patient is aware of this. Indeed he is quite often ashamed of them and shows much diffidence in talking about them. He appreciates the fact that they do not belong to the recognized order of things and that they are foreign to the rest of his personality. He feels that they are intruders upon his inner, his intimate self. But at the same time he continues to give way to them, showing thereby that he has unconscious faith in their power and magic to influence his thoughts and actions.

Each obsessional act has its own counter-obsession. He alone must hold the key to both. The stone must be picked up and thrown away, but he must also retrieve it and safely bury it; the advertisement must be read, but he must also return and make sure that no word has been missed out; the newspaper must be read from the very first word to the very last, but it must also not be touched again by any part of the body when it has been gone through; and so on to infinity. It will be seen that the rituals will eventually become

organized into a system; and that this system may in time involve the 'occupation' of the whole waking life. They become automatic after a while and no longer occupy the whole field of consciousness. At the same time they never succeed in becoming an integral part of the personality, remaining always outside of it, never quite satisfying their victims, yet, unless indulged in, threatening disaster to the loved object.

Case.—A married man of 45, a radio engineer by occupation, began to complain of being unable to concentrate on his work because 'unpleasant' thoughts kept coming into his mind however much he fought against their intrusion. His wife stated that at home, on returning from work, he would sit in an armchair and impose absolute silence on her for as long as an hour at a time, so that he "could straighten himself out before going to bed". Life became so difficult with him that she insisted on him seeing a psychiatrist. After two or three interviews the patient became more communicative, though still very much in doubt about "making a fool of himself by telling a doctor all about such silly thoughts". Eventually he volunteered the statement that all his waking hours were being occupied by fearful and sadistic wishes against the soul of his dead female cousin. He could not resist the belief that these wishes would harm the woman's soul and prejudice her chances of eternal happiness. So, in order to undo or annul the supposed evil, he would have to go into silence and seclusion forthwith and work through the various expressed wishes by spelling them backwards in his mind. At first he would save up all the thoughts until he reached home in the evening, but after a few weeks the desire for annulment became so insistent that he would have to stop whatever he was doing at the moment and begin the undoing ritual forthwith. During the stage of adolescence he had passed through frequent phases of rumination over questions of health, violent death, and the life hereafter. He also suffered most of his life from a compulsion to touch chairs and windows "for luck". The prognosis in this case is not hopeful.

Amongst coincident symptoms of obsessional states we find a sense of insufficiency and inadequacy; much tension and anxiety; very often depression with agitation, sometimes ending in suicide. Depression may in fact be the most important presenting sign.

In early life obsessional disease sometimes occurs in a schizophrenic setting. In later life it occurs as a feature of senility, pre-senility, and arteriosclerosis. It nevertheless

begins in early childhood and reaches some sort of organization at puberty, when body function appears to assume major proportions in the mind of the young and must be subdued by magic and ritual. The Good must vanquish the Bad, and the bridge between the two is the obsessive act.

Early environmental factors in the life of the obsessional sufferer almost invariably include the presence at home of a bullying patriarchal father and an over-zealous anxious mother. So often do these antagonistic, contrary, opposed parents figure in the histories that we may state that the obsessional is the offspring of parents carrying contradictory genes, leading unhappy married lives, and whose sex relationships are mutually unsatisfactory. The child, early on, feels himself pulled in opposite directions, never sure whether male or female is to be regarded as Good, whether to hate or to love, to placate his conscience or to sin. Further, in many cases we shall discover a psychic trauma consisting in a debasement, real and factual, of the good-mother imago. The obsessional now stands alone. He cannot turn to father; his original conception of mother has deceived him. His childhood realities were mixed and his later realities came into conflict with them, all his realities having now become unclear to him. To these false impressions of personal parents must be added the inborn patterns of the racial father and mother, which patterns may from the outset—from the germ plasm onwards, that is—have undergone distortion.

It is to Stekel that we are indebted for much of our insight into this condition. He calls the obsessionals "objective parapaths", as distinguished from the hysterics whom he designates "subjective parapaths". The 'object' is a home relationship, such as father, mother, brother, sister, or other member living in the same house. The sufferer would be well able to deal with the realities of life were it not for this contrary pull detracting from their full value. According to Stekel, too, the central core of the obsession is a secret, a bad experience which has undergone encapsulation because of the refusal of the ego to recognize its existence. The affect is displaced from the hidden complex on to an innocuous idea, the latter safeguarding the re-entry of the complex into consciousness.

A triple mechanism is therefore at work: first, the affect is displaced from the original experience; secondly, the experience undergoes substitution; thirdly, the substitute undergoes symbolic transformation. Symptoms arise when the original experience threatens to rejoin its affect and to enter consciousness.

The obsessional psychoneurosis, then, is a defensive, propitiatory ritual against a feeling of guilt; a superstition, a symbolic chain of acts calculated to deflect punishment. All superstition is based upon a fear of punishment, and this fear is motivated by unconscious guilt-feeling.

These considerations suggest the underlying *psychopathology*. The symptoms are, in the first place, a mask behind which the sufferer attempts to hide from himself and from others the psychic nature of his difficulties. He is unable, and certainly very disinclined, to associate freely, just as he is disinclined to talk about his obsessions. He looks upon the latter as something rather lowering to his prestige, something unworthy of his ego-ideal. Analysis reveals the fact that obsessions, compulsions, doubts, are methods of repression, and are a defence on the part of the ego against the return into consciousness of a past experience coloured with guilt-affect. It is evident that the whole make-up and structure of the personality are in themselves means of repressing the unwanted emotion or feeling; the whole life façade of righteousness, pedantry, tyrannical correctness, superstitious piety, is assumed in order to deceive the subject and his environment against the dread secret. And as long as the deception holds, as long as repression remains competent, the obsessional will ward off the threatening psychoneurosis. Should repression fail at any time to keep the dreaded memory from irrupting into full awareness then it must undergo some sort of disguise: some innocuous idea takes its place in consciousness together with all the strong guilt and shame affect belonging to the original experience but now displaced on to the obsessional symptom.

Amongst obsessional symptoms were mentioned fears of all kinds. These obsessional fears are themselves disguised fears and are in reality attached to the encapsulated or repressed

memory. They therefore differ in some degree from the fears as encountered in the anxiety hysteric, since in the latter the fears can be proved to be disguises for desires. The obsessional uses his fears as a measure of safety against the return of the repressed bad object; or rather, he simulates fear of some conscious object rather than face the fear surrounding the repressed memory. The anxiety hysteric uses his fears in order to assuage corresponding antisocial desires. In both types the mechanism works unconsciously.

Finally, it should be added that the variety of obsessional symptoms is almost infinite. It ranges from the well-known compulsions such as kleptomania and pyromania to some forms of masturbation and stereotyped mannerisms. But as long as the sufferer feels and states that they are absurd in themselves, and as long as he remains emotionally in tune with their disturbing presence, we may say that we are dealing with the psychoneurosis and not with the paranoid dementia syndrome. But the differential diagnosis between the major and the minor psychosis presents many difficulties, and these will be referred to in the section on schizophrenia.

In children we frequently meet with compulsive rituals, but these need not often be taken seriously unless they begin at puberty and are associated with much anxiety and diverse fears. In such cases it is advisable to carry out some modified form of analysis coupled with explanation, suggestion, and persuasion. Whether this type is liable to develop schizophrenia in early adulthood or not is uncertain. One has witnessed such an eventuality in cases where multiple fears were the predominating feature, and with severe anxiety as a persistent concomitant. It cannot, however, be definitely stated that a schizophrenic psychosis is to be feared in youthful obsessionals; sufficient evidence is lacking.

3. Treatment.—The treatment of obsessional psychoneurosis consists of psycho-analysis or a derivative therefrom. If, as our account of its psychopathology suggests, the obsessional is suffering from his ceaseless attempts to repress a dreaded memory, then our efforts should be directed towards the bringing out of this memory into consciousness. Secondly, we shall proceed to reconstruct the long chain of events and

their affects connecting the memory with the presenting symptoms. The analysis is invariably a lengthy one, and tedious; the patient will offer resistances to such linking up sufficient to try the patience, ardour, and faith of the most experienced analyst; time and again he will insist on his belief that his troubles have a physical basis and he will brush aside all psychological interpretation; his dream productions may be of the scantiest; finally, when the analyst believes that at last the light is dawning, his patient will, with unutterable blindness and sang-froid, resuscitate his own original and uninformed theories about the genesis of his complaint.

The *physical state* of obsessional neurotics invariably needs careful investigation. More particularly is this the case with the upper respiratory passages and the alimentary tract. We must not proceed with analysis until the patient's bodily symptoms have been either removed or satisfactorily alleviated, since their persistence has the double effect of making him suffer unnecessarily and of giving him an opportunity of blaming their presence for his neurotic state. It must nevertheless be emphasized that no obsessional psychoneurotic was ever cured by surgical or medical measures, however enthusiastically carried out, although alleviation of the distressing anxiety in long-standing and resistant cases has recently been claimed for the operation of frontal leucotomy.

Mild states of obsessional neurosis should not be analysed to any depth, as it must always be remembered that the disease itself is an attempt at self-cure, interference with which must, in even the most favourable circumstances, be counted a delicate and difficult task. We should try and convince the patient that he is living in a fictive world of his own where the 'realities' are of his own making; that he is playing games with those realities whilst shutting his eyes to the true realities of the world around him; that his rituals are the products of his desire for illusory magic, the while time and the occasion for endeavour flash past him.

E. ANXIETY STATES

I. General Considerations.—Fear is the emotion evoked by the threat of danger either to one's physical or to one's

psychic integrity. A man may fear the prospect of an impending disclosure of some antisocial act. His anxiety can be explained with reference to objective realities. Or he may fear the prospect of an impending violent death; again, his anxiety belongs to the world of the objective and the real. An anxiety state in the psychiatric sense, though in the final analysis there is also present the fear of death and the fear of one's deepest urges, is not referable to objective reality. The somatic repercussions may be the same in both cases, but they differ in their genesis: fear is the manifestation of the instinct of self-preservation, anxiety is the result of repression. But not of repression only: there exists between anxiety and sexual activity a close link which cannot easily be explained except by positing some such biological hypothesis as that an archaic phylogenetic anastomosis exists between sexual excitement and the emotion of fear. A damming up of sex affect may, then, be converted into feelings of true anxiety. It would seem that a slight quantity of anxious feeling is pleasant, even sexually pleasant, but beyond a certain quantity it becomes anxiety, may lead on to fear, and finally on to panic.

Is it then true to say that in the midst of a life-giving process we feel the threat of dissolution? Or is it nearer the truth to suppose that in the midst of satisfying a biological need we fear lest the ultimate orgasm fail us?

The outward signs of anxiety may show themselves throughout the whole autonomic nervous system, eventually overflowing into the pyramidal and extrapyramidal systems. But, as is the case with all deviations from the physiological or psychological norm, an individual anxiety attack more often fractionates the total picture of a fear reaction. The somatic analogue of an anxiety state is exophthalmic goitre, or rather hyperthyroidism. In this disease we find an increased metabolic rate, increased output of the heart, relaxation of cutaneous arterioles with consequent flushing and sweating, acceleration of the heart rhythm, sensitization of the sympathetics with dilatation of the pupil, retraction of the upper lid, protrusion of the eyeball, and fine tremor of the voluntary muscles. Profound and protracted emotional states, and also some dysfunction of the anterior pituitary, may bring about this syndrome.

But the psychic attacks of anxiety usually cause only a fraction of the total syndrome, a fraction which somatic medicine describes by the name of vaso-vagal attacks. The anxiety attack is a bewildering mixture of excitations and inhibitions at varying levels, involving both the sympathetic and the parasympathetic systems. We find amongst the symptomatology such signs as tachycardia, increased rate of respiration, sighing, sweating, tremors, vertigo, diarrhœa, frequency of micturition, paræsthesiæ, muscle cramps, sudden weariness, night terrors, vomiting, gastralgia, noisy flatulence, 'dead' extremities, migraine, and restlessness.

The attack appears upon a previously existing background of tension and of vague apprehension, in a personality whose characteristics may be described as egotism, aggressiveness, fearful expectancy, ambitiousness, concern about the opinion of others, and whose heredity shows well-marked handicapping. Thus some workers have computed a constitutional factor at 85 per cent of cases; others find an anxiety heredity amongst parents of 21 per cent of cases, and anxiety states amongst 12 per cent of the siblings. Amongst other predisposing causes a bad home life was found in 70 per cent of patients. Conscious sex conflicts were found in 22 per cent. Physical findings included operation scars in 23 per cent of a series of 239 anxiety neurotics.

We may, for psychiatric purposes, use the term anxiety in order to describe an inner fear, an apprehension, a feeling of impending catastrophe, based on no objective reality but grounded in unconscious factors of varying depths. In this sense it may proceed from the Id-impulses, from the super-ego, or from the racial super-ego (Laforgue). It is in this sense too that we meet with it in diseases of the super-ego such as compulsions and obsessions. In some depressive states we find the anxiety element very prominent, but not by any means in all, some authors having, in fact, postulated the existence of two kinds of depression based on this distinction. Again, some types of early schizophrenics produce definite anxiety attacks, sometimes proceeding to panic. One has also observed them in certain types of alcoholics. Typically, however, anxiety attacks and anxiety states are the

physical methods of reaction of those who suffer from morbid fears, or phobias.

Anxiety in relation with multiple phobias is by some described as Anxiety Neurosis, by others as Anxiety Hysteria. Objections have been raised to the latter terminology on the grounds that the hysteric is emotionally unconcerned about his condition, and that, frequently, he exhibits conversion in terms of neuromuscular syndromes.

Freud described two forms of anxiety, the free-floating type and that which is attached to phobias, the two being looked upon as independent of each other. The phobias he grouped under anxiety hysteria, regarding them as closely allied to conversion hysteria, whereas the free-floating type he called anxiety neurosis.

2. Anxiety Neurosis : Anxiety Hysteria.—Anxiety as an exteriorization of conflict, on whatsoever level of psychic integration this may exist, is seen in its most fulminating form in connection with the phobias, that is, with fears for which no appropriate outward stimulus can be proven to exist. It constitutes the reaction of the ego to the threat of annihilation and has its foundation in sex disturbances, the sexual needs being in constant conflict with a rigid ego-ideal. Phobic anxiety is known as anxiety neurosis or anxiety hysteria.

The condition manifests itself in the form of recurring episodes of fear-states of varying intensity and duration. One has met with patients in whom such a state occurred several times a day for many months, and others who exhibited symptoms only twice a year with fair regularity. In between the episodes such patients are usually tense and vaguely apprehensive, and their aggressive trends are marked; they are irritable and dissatisfied, emotional and impressionable, and complain of being unable to concentrate, with the result that they forget names and appointments.

Attempts have been made (Loewenfeld) to classify the various spheres in which anxiety may arise. A classification of this sort proves practically exhaustive of all the possible human activities and legitimate interests: bodily health, morality, ethics, family relationships, daily work or profession, sex, mental health, and religion.

Likewise, Freud has compiled a lengthy list, one for each sex, of circumstances in which the anxiety neurosis may occur. Thus he mentions the anxiety of the young or adolescent virgin, of the newly married, of wives whose husbands suffer from reduced potency or *ejaculatio præcox*, or who practise *coitus interruptus*; of widows and climacterics; of the person who abstains from intercourse intentionally; of men in senescence; of neurasthenics, and of those who overwork or are subjected to excessive strain of a physical sort. One cannot help remarking, in connexion with this list, that the circumstances enumerated might well represent occasions, rather than causative factors, to which an already predisposed individual reacts with an anxiety attack.

It is nevertheless a fact of observation that in an overwhelmingly large proportion of cases one finds sexual conflict to be the ultimate basis of the neurosis. Very often it centres round masturbation, its disappointments, fantasies, or excesses; also, and perhaps as frequently, round the frustration of some type of deviation from the usual sexual act. Not these factors themselves, however, but the conflict engendered by them, must be held responsible for the state of anxiety, with, in addition, a hereditary handicap.

Freud had proposed two types of anxiety states. Underlying the one, his anxiety neurosis, was to be found a somatic basis; underlying the other, a psychic basis. Later on he modified his views by stating that the psychosexual disorder could in all cases be laid at the door of sexual conflict, and that his distinction between the two proceeded from theory rather than from experience.

A distinction for the sake of classification may still be made, in the view of Stekel, and the name Anxiety Neurosis applied to those types in which anxiety takes on a preponderatingly physical aspect; the name Anxiety Hysteria to those in which psychic elements are the more conspicuous, both resulting from psychic conflict. This conflict ultimately resolves itself into the ages-old antithesis that exists in the human psyche between instinct-bound desires and the ego in the process—a lifelong process, that is—of civilization and socialization. The self-ideal, set up by each of us according to our heredity

and experiences, feels itself threatened by the irruption into consciousness of these desires; automatically and unconsciously the latter are repressed, and in their place is left apprehension, fear, anxiety. The latter, then, becomes equivalent to the repressed wishes, a metamorphosis of the unknown, unwanted, into the less culpable fright pattern. Henceforth the façade is one of apprehension, of fear—at times exhibiting merely general irritability for noises, at other times massive autonomic commotion.

Between these two the range of anxiety manifestations is almost infinite. The attack may come on like a bolt from the blue, or may be preceded by premonitory signs, such as mild depression, ill-temper, unusual silences, inability to settle to anything. The fully developed attack has already been described in physiological terms, such as rapid breathing and pulse, pallor, tremors, and so on. But perhaps more frequently an individual attack shows only a fraction of the syndrome, and it may on this account escape detection. These fractions or equivalents are psychosomatic in character. A woman of 45 has an attack of tachycardia, prepares to die, sends for the doctor and the curate, and asks forgiveness of her young daughter because her hour has come. Thirty-six hours later she is up and about again. She has been subject to these death-fear scenes for the past twelve years and they never vary. A girl of 17 begins to tremble and go pale in the face whenever she hears of either a death or an infectious disease. The duration of her attacks is twelve months, and they never vary. A man of 25 begins to sweat and has an imperative urge to pass water whenever he is in close vicinity of a farm, or even of lorries carrying vegetables or manure, lest worms and creepy things get into his body and poison him. His symptoms have remained the same for three years.

Each anxiety neurotic would seem to possess a method of his own with which to express his fears, and it appears likely that the organ chosen for his symptoms has figured in his somatic life history on some previous occasion in an emotional or physically painful setting, usually in childhood. Such an organ would assume the properties of a *locus minoris resistentiæ*,

or of an inferior organ in the Adlerian sense. Indeed there exists ample evidence for the contention that a chronic neurotic disorder is capable of building up definite tissue alterations in various organs of the body, alterations which after a period of time become irreversible. The phobia also might well be covered by this hypothesis. Often we find that in the childhood of the phobic patient fears have been expressed or exhibited by parents or other near relations in the home, and that those fears are identical with, or similar to, the ones presented by the patient.

Anxiety itself is the fear of one's own libidinous urges and antisocial, or criminal, tendencies. An individual who cannot find a form of sexual satisfaction adequate to himself, or is in severe psychic conflict between anti-social urges and morality, suffers from an anxiety neurosis. Freud's theory of frustrated sexual excitation (e.g., coitus interruptus) as the psychosomatic basis of this neurosis cannot be admitted as covering its whole genesis; we must postulate in addition some psychic conflict; an affective, not a somatic, origin.

The various types of fears are, it will be seen, merely substitutes for the unconscious fear of one's own urges and desires, the true fear having been displaced (Freud) on to a spurious one. The face value of the latter is, therefore, negligible or nil. The sufferer realizes its morbidity and its lack of logical foundation, but finds himself nevertheless quite incapable of overcoming it. The unconscious conflict has driven him into an impasse whose only way out is by the unwitting transposition of fears. Moreover, the fears themselves possess symbolic value for the sufferer: they express in a quasi-plausible guise desires which in unaltered form might disrupt the ego-ideal with shame and mortification. The symbolism of phobic symptoms can fully be grasped only during analysis, as no mere setting down of fanciful or poetic equivalents can do full justice to the amazing subterranean activities of the primitive layers of the human psyche. Fear of bright lights equates with a desire not to face the truth; fear of noises is the voice of conscience; of going out, the fear (desire) of being violated; of crossing a bridge, fear of going towards forbidden things and death; of insanity, a desire to be made

non-responsible for sinning ; of infection, fear of incest, and so forth. Frequently the fear of retribution for death wishes against others forms the basis of death fears.

Apart from the phobias, and the somatic manifestations of the actual anxiety attack, there is a symptom of which anxiety neurotics often complain. The patient will say that she feels strange, unreal, not herself, or that she is another person. This feeling, in the writer's experience, does not arise during the anxiety attack proper, but forms rather an equivalent of an attack. It depresses the patient a little, but this is not always the case by any means ; some patients appear to look upon their diminished ego-feeling as something not unpleasantly weird, as if their face were not their own, their voice someone else's, their arm or leg projected away from them, their body become smaller. Strohmayer (1908) described this symptom at some length, but stated that it was always accompanied by extreme anxiety and with a belief on the part of the patient that she was going insane. One has met with unreality feelings in schizophrenics, in hysterics, and in depressives. In two cases at least it occurred in female stutterers, both of whom had noticed the symptom some months before their anxiety states became fully declared.

A typical case of anxiety hysteria is the following :—

Case.—A married woman of 22 has, since the birth of her child, complained of being afraid to go out alone, to travel in bus or train, to go into shops, and to answer the telephone. She states that she is afraid of suddenly feeling unreal, and that she might be picked up by the police when in this condition and be certified insane. She only feels safe in the company of her mother (whom she says she really hates) and she cannot understand why her husband does not give her the confidence she had expected to feel in his presence. In the midst of a conversation she will suddenly look perplexed, puzzled, and begin to tremble and perspire, and exclaim : "Quick—somebody—tell me who I am. Am I still me? Quick—it will be too late." The feeling passes off as a rule in a few minutes, but it has been known to last for two hours and end in a true panic reaction.

The patient had been bullied into her marriage by her mother, and had been given strict injunctions not to have a child for at least five years. As a child she had many times entertained death wishes towards her mother and had often fantasied her mother

not coming back after a train or bus journey, or a shopping expedition. As a child, too, she used to think that whenever her mother answered the telephone there was a "bad man" at the other end of it. Her statement that her father was intensely unhappy at home was factual and received corroboration.

She improved greatly after a very few analytical and explanatory sessions. She has kept well for the past three years.

3. Treatment.—From the above account it will have been inferred that some form of analysis constitutes the treatment of election. How long the analysis should take is a matter of special circumstances, but often from three to six months is successful in freeing the crippled psyche from anxiety and in giving the patient a sound insight into her condition and her personality failings. A longer time will be required if her multifarious phobias are to be entirely removed. In cases where a marked diathesis and neurotic heredity exist we can only hope for a kind of palliative approach, since any depth analysis in such patients is bound to prove disappointing.

Self-assurance, rather than dependence on the physician, should be the keynote of all treatment here. The personality will come under analytic review, as also attitudes and habits of thought, ethical and moral standards, life situations, sex frustrations, and unhealthy fantasies. As soon as possible the patient should be encouraged to face anxiety situations and find an occupation.

CHAPTER VII

ANALYTIC THERAPY AND PSYCHO-ANALYTIC THEORY

HAVING passed in review the general symptomatology of mental disorders, the various psychic dynamisms resorted to by those who feel the need of such dynamisms, and having dealt with the disorders known as psychoneurotic states, we may now attempt to clarify the general psychopathological theories and hypotheses here and there alluded to in the foregoing chapters. It must be conceded that, were it not for the stimulating and energizing work of Freud and of those who have come after him, we might still be blundering along amongst the psychiatric catacombs of last century. Much of what Freud first propounded has undergone modification, both by himself and by some of his brilliant successors and equally brilliant secessionists; in this respect we find him in the illustrious company of the scientists of all ages. Much of his psycho-analytic theory and speculation has become so much a part of psychiatric materia medica that the identity of the originator is liable to become lost in a wealth of long-accepted concepts and hypotheses.

To give a full account of psycho-analytic theory and practice would take us beyond the intentions and scope of this work. We shall merely touch the outlines of this vast structure, leaving the reader to implement with more details from other and more competent writers on the subject. Somewhere Jelliffe has said: "Freud for the first time rendered the 'soul' accessible to conscious perception and offered a method for gaining insight into dynamic principles of creative and destructive tendencies, without which no real psychosomatic unity is understandable."

The phenomenon of post-hypnotic automatism provided one of the clues which sent Freud along the psycho-analytic path.

He found, as did many others, that the subject carried out a train of activity, suggested to him under hypnosis, after awakening from the hypnotic state, and that he gave certain reasons of his own when asked to explain why he acted in this way. Since the hypnotist knew the real motive or reason for the subject's actions, and since this motive or reason differed from the one which the subject had volunteered, the experiment suggested that the reasons for our actions can be different from what we believe them to be, and it indicates the existence of unconscious forces. Freud soon gave up the hypnotic method and persuaded his patient to tell him everything that came to mind, without any selection, associating freely from one thought element to another. Thus were laid the foundations of the psycho-analytic method of symptom investigation.

During the years that followed Freud built up a conception of the dynamic structure of the mind, differentiating between the various agencies active therein. Our instinctual life he called the Id, a vast storehouse of automatic responses to outside stimuli, and of our sex and aggressive urges, the latter comprising impulses of hatred, hostility, destruction; among Id factors, too, are our chemico-biological experiences and trends. Out of the Id there emerged a perceptive system, the Ego or Consciousness, when by reason of external or environmental changes the automatic response system was faulty, and this Ego system began to take on the functions of analyser, suppressor, and repressor towards the Id impulses when the latter threatened the well-being of the self, the individual, or society. Thirdly, by analysing dreams Freud noticed that the crude Id urges were here also undergoing an alteration in symbolic expression, an alteration which metamorphosed their crude yearnings into something more acceptable to the individual's Ego.

This dream mechanism he compared to a censoring function (he called it the Censorship), itself also a type of repression. From this observation he was led to the conception of the Ego-ideal or Super Ego, a dynamic entity based largely upon precept and example in childhood, such as the authority of father and mother, and later of teachers, preachers, and other

figures of power. The Super Ego makes contact both with the ego and the id, forming in fact part of both these structures, and acts as an aid to repression for the ego. Some id processes must remain for ever inaccessible to conscious control and repressed absolutely ; of this order are our organic processes, including those of organic disease. At the lower levels of the Super Ego we find those fear-control mechanisms which in the archaic past of the race took the place of our present civilized control, such as ritual ceremonies, magic, superstition, witchery.

Between the ego and the id there rages an age-long struggle, these two dynamic agencies waging a perpetual war for the right to gratification. To the aid of the ego comes the method of repression, which constitutes a defence against the aggression and hostility of the id forces and thus tends to relieve inner tensions. The method amounts to an automatic and unconscious refusal to recognize the instinctual claim at all, and its weakness consists herein, that the instinctual drive and energy thus turned down does not thereby lose its power for surging back upon the ego at a later date, all too frequently in the shape of neurotic symptoms. It is precisely this repression which it is the aim of psycho-analysts to abolish ; it seeks to make conscious that which is unconscious, thereby giving the mature ego an opportunity to solve its conflicts in a sound manner. Instead of being now torn between the Pleasure Principle as advocated by id urges, the ego now conforms with the Reality Principle as imposed by the outer world, thereby giving proof of possessing practical wisdom.

Sexual tendencies permeate life from our birth onwards ; the pseudo-mystical view of Jung that sexuality is something abstract, or the view that it is equivalent to our inherited wish for power (Adler), are both rejected by Freud as inadequate. He considers that sexuality begins in infancy. In early childhood sexual desires are directed towards persons most closely related to the child, usually father or mother, brothers or sisters. Coincident with this sex direction towards one parent there also exists the tendency in the child to consider the other parent an interfering rival. Thus are laid bare the foundations of the Œdipus Complex, the most disturbing of all complexes

later in life, but one which should have been abandoned or transformed with the termination of early sex life. This desire for incest is merely the individual's recapitulation of the permissible incestuous practices of early man, practices which became later on in our archaic history the prerogative of gods only and were abandoned by the majority of mortals.

Sex, or libido, organization is presumed to pass through certain evolutionary stages from infancy towards adulthood under the modifying and restraining influences of the developing ego and super ego systems, the end of the process being heralded when the genital apparatus gains supremacy over the oral, the anal, and the urethral. From the organic growth, through adolescent narcissism, to mature object love, and finally to the setting up of social values amongst human contacts—these are the stages through which our libido urges us on.

To Freud the process of *dreaming* and its communication to the analyst form an important set of data. He looks upon the superficial story, as told by the dreamer, as the dream's manifest content; that which lies behind this in the unconscious sphere, the latent content. Part of the latent content may, and often does, become clear and overt when the subject begins to associate freely around its individual elements; but much, if not most of it, has to undergo a process of interpretation, a process which, like psycho-analysis itself, has to be carried on against varying strengths of resistance on the part of the subject. It is this same repressive censorship, already alluded to, which constitutes resistance in this sense. That which turns the latent content into the manifest content is termed the 'dream work'. The same sort of mechanism translates unconscious thought and feeling processes into neurotic symptoms. In every dream an instinctual wish is displayed pictorially as fulfilled; and this picture dramatization has the qualities of that earlier and primitive mode of thought expression used by the mind of man during the developmental ages of our race, and therefore deserves the epithet 'regression'. To certain dream elements Freud ascribed symbolic value of a universal kind; that is, certain dream elements are symbolic of the same things always and

everywhere and to all minds. Thus, the pointed object is a veiled allusion to the phallus; the box or other container, to the vagina; going up or going down, to coitus.

Certain activities are described as being the functions of dream work. Amongst them we find the process of *condensation*, one element in the manifest dream corresponding to several dream thoughts; *displacements*, where the affective accent is transferred from its original attachment to an unimportant one; dream distortion results mainly from these two mechanisms, the distortion as a whole being effected under the direction of the censorship; lastly, *secondary elaboration*, which is not the function of the dreamwork, but is the treatment which the dream receives at the hands of the dreamer when it enters his consciousness, and represents a process of translating the visual pictures into a coherent whole. The foundation of dream theory, and of psycho-analytic theory in general, can be expressed by the four words: *repressed infantile sex wishes*. And in his theory of the psychoneuroses, too, Freud stresses the infantile and sexual aspects.

Much of Freud's theory has been subjected to criticism, both constructive and destructive, both helpful and inimical. Recently we have had the privilege of reading a philosophical discussion on the subject from the pen of R. Dalbiez, a practising psycho-analyst and also a trained philosopher. We shall attempt to give the gist of Dalbiez' critique without quoting his actual words, and we therefore wish it to be understood that any factual or implied misrepresentation of his meaning shall be imputed solely to our own deficiencies.

The unconscious and the conscious work together in harmony, and we reap the benefits of our former psychic acquisitions without the necessity of evoking them in consciousness; the unconscious nature of habits might be quoted as an example, all cognitive and affective experiences leaving their traces behind them in a latent form, whether active or inactive. Psycho-analysis investigates inborn tendencies, experiential modifications of inborn tendencies, and acts proper. Stuart Mill, a positivist philosopher, accepted the concept 'tendency' when he stated that all laws of causation require to be stated in words affirmative of tendencies only, and not

of actual results. It is only in pure mathematics that the potential state or tendency does not exist.

Dalbiez disagrees with Freud on the question of spiritual experiences and free choice, both of which he ascribes to the will.

On the grounds that even the most sceptical are willing to accept a properly conducted physiological experiment, Dalbiez sets out to compare the psychic dynamism of Pavlov with that of Freud. Taking Pavlov's experiments on reflexes first, he begins with the inhibition of absolute reflexes. Internal inhibition is said to occur when the effect of the stimulus is an arrested movement; external inhibition, when the effect is a movement incompatible with one already taking place and which it then arrests. In the case of conditioned reflexes inhibition has the same results, but internal inhibition becomes more complex. Thus, without reinforcement the conditioned response becomes extinct; but it returns after a while, a proof that the conditioning process is dynamic. Secondly, to an already established conditioned stimulus A a new one B is added. This combination AB is now operated without reinforcement and its effect becomes nullified. But A, which had always been reinforced, continues to produce the conditioned response. Thirdly, as the interval between stimulus and food giving is prolonged so is the conditioned response delayed. Finally, Pavlov obtained inhibition by differentiation; he produced sound vibrations around a note with which the conditioned response had originally been established, and found that these vibrations acquired an inhibitory power. The cerebral hemispheres possess therefore an analytic and synthetic power.

Furthermore, psychoneuroses were produced by making two antagonistic psychic processes clash, suggesting that the cortex found it difficult to resolve the conflict between these two. Traces of very strong stimuli tend to persist in the subcortex, only to emerge again when the inhibitory power of the cortex is weakened.

Freud, by means of his clinical experience, has proved that psychoneurosis is the result of a clash of opposing forces and a return of the repressed material in disguise. A clash between

excitation and inhibition, states Pavlov, leads to a profound disturbance; or, as Freud would say, the failure of repression leads to the symptom. But what is the cause of this failure? Pavlov says that in compensated types of dogs no nervous disorder can be produced; Freud states that psychoneurosis hardly ever develops unless constitutional factors are also present. Failure to differentiate in Pavlov's sense, occurs also in the Freudian sense, as when a man fails to respond genitally to woman because he fails psychologically to differentiate between her and the complex stimulus mother, which latter carried within it the original genital inhibition—the basis of the Oedipus situation.

Pavlov's inhibition represents the experimental homologue of Freud's regression and death instinct.

Therefore, concludes Dalbiez, we may say that Pavlov's experiments justify the theory of the existence of the unconscious and of psychic dynamism; his study of the modifications brought about by past experiences upon the reactions to sensory stimuli can leave no doubt upon this point. What happens to images in so far as they are known to lead an independent life of their own Pavlov does not say, as this is beyond the scope of his experiments.

Freud's method of *free association* aims at removing repression. In Pavlov's terminology de-repression is the inducing of internal inhibition of the higher centres together with disinhibition of the lower centres, resulting ultimately in voluntary suspension of the higher functions. This is also Freud's method, a voluntary inhibition of the higher psychism.

Freud's next step is that of interpretation, and the criteria of the correctness of an interpretation, such as that, for instance, the manifest dream element X means in essence the latent dream element Y, are these: whenever X is mentioned Y must be evoked; similarity must exist between X and Y; the evocation must recur frequently; there must be convergence of many X-types upon Y. It is on these that our establishment of causal relations between a dream image and, say, a memory, will depend.

Upon the pan-sexualism of Freud Dalbiez has some pertinent and enlightening remarks to make. He finds it impossible to

admit that the child is polymorphously perverse, on the grounds that this would be tantamount to admitting that the very essence of the living being contains a positive pre-ordination to abnormality (considered strictly as abnormality), and he suggests a transmutation of terms into polymorphously pervertible. Nor does he hold that, because certain bodily zones give pleasure when handled, they are necessarily sexual (Freud's erogenous zones); they are, he thinks, interchangeable and hedonic, but nothing more. Where Freud assumes an ascending scale of perversions, in the matter of differentiation as to Object and Aim, leading to normal sexual life, Dalbiez prefers a scale something as follows: first, a felt need for sex contact, with indifference as to whether it be auto- or allo-erotic; secondly, a desire for contact with others, but without special preference for either animals or humans; thirdly, a desire for contact with human beings, whether this be homo- or hetero-sexual; finally, a fully-developed desire for the opposite sex.

Dalbiez finds room within the Œdipus complex for three possible divisions: a genital, a sexual, and a filial. He does not consider the castration complex as of frequent occurrence: penis envy in girls he has met with more often in practice. Like Havelock Ellis he is disinclined to preserve the word perversion in sexology, being of the opinion that it carries with it the moralist's veto; he suggests the word sexopathy instead. Anomalies of object choice are, he considers, never inborn but always psychogenically determined later on. On the other hand, anomalies of aim are frequently inborn, although they may also be acquired or stimulated later on. He resolutely condemns psychotherapeutic nihilism in sexopathy and states that cures exist in abundance and that failures prove nothing. He does not consider that narcissism constitutes a normal developmental stage in all individuals, and draws a distinction between auto-erotism (sensory stimulation) and narcissism (self-love), the latter being the more extensive term.

Freud's main claim to fame is his new method. Like the microscope, the telescope, the infinitesimal calculus, it is an impartial instrument. Destructive critics of his method and theories have come mainly from the ranks of those who have

either never conducted an analysis or have never been analysed themselves. The value of such criticism is, at most, inconsiderable. If Freudism must one day be revised it will be simply in virtue of psycho-analytical facts, and only its practitioners will be legitimately entitled to suggest corrections. Only psycho-analytical facts can oppose facts deduced by other psycho-analytical facts.

With these remarks of the philosopher-analyst we end our short exposé of a brilliantly executed scientific critique.

We must add a few words on Freud's theory of the psychoneuroses in general. He holds that they are quantitative disharmonies, whose determining causes, usually laid down before the sixth year of life, are to be found in the interplay between inherited tendencies and experiential facts and fantasies. They do not differ in any essential respect from the normal except in quantity, in intensity. The two factors which are especially concerned with their origin are the sex instinct and the plasticity of early childhood (leaving out the question of so-called traumatic psychoneurosis). Psychoneuroses, being disorders of the ego, will the more easily establish themselves during the period when the ego is still immature and incapable of defence, and will the more easily, too, drive the ego into repressive methods of defence. Also, it must be remembered that during this stage of development the ego is being forced into the moulds of civilization, is being made to recapitulate in an incredibly short space of time the wisdom and experience of past ages. The symptoms of psychoneuroses are exclusively a substitute satisfaction to some sexual component, or are compromises between the two, or are methods whereby the ego seeks to circumvent such satisfaction. In later years adult deprivations re-activate the childhood anxieties.

Analytic Therapy.—Of psycho-analytic method and its derivatives it is difficult to give a description, and those students who are genuinely interested in the subject must look for guidance from clinics where such treatment is carried out. The procedure consists in allowing the subject to associate freely and without restraint from whatever thought element enters his mind; secondly, he is asked for an account of his

dreams and is then allowed to associate freely around the dream elements. It must be remembered that the function of the psychic apparatus is to discharge incoming stimuli and later on to co-ordinate them; failure to do this means that there is left behind a residue of undischARGEABLE material in unco-ordinated form. Unusual channels are then sought for, and the psychoneurosis offers itself as one method of discharge. Psycho-analysis tries to confront the ego with those instincts with which it is in conflict, to help these to enter the integrated personality, and to change infantile into adult sexuality. More often than not it will be easier to find superficial derivatives of the offending instinct or of the repressed urges, and these will be better understood by the subject. For instance, it will at first be more profitable to speak to the patient of his excessive mother attachment rather than of the underlying incest motive. Fenichel gives the analytical formula somewhat as follows: first, we abolish the resistances by making these conscious, rather than making the unconscious conscious; secondly, since analysis is an affective process, a process of libido flow or of re-living emotional experiences, intellectual talk should be secondary; thirdly, a beginning should always be made at the surface. Soon the analyst will come up against resistances on the part of the subject, and these represent the force used during the process of analysis to keep repressed material from entering consciousness. This force, it will gradually be discovered, may take on the most unexpected forms. *Transference*, upon which the successful analytic relationship rests, is the emotional dependence of subject on analyst; it should be deep and strong, yet without any pandering on the part of the analyst. To obtain this transference is not very difficult; to wean the subject of it presents many difficulties, but the analysis cannot be said to be ended until this is accomplished.

CHAPTER VIII

THE PSYCHOSES

Introductory Remarks.—From the point of view of the society in which he lives a man may be deemed insane when his inner thought processes are influencing his behaviour in such a way that he has become dangerous to his own welfare, or to the welfare of others, or both. All progressive insanity is, sooner or later, bound to lead to damaging or destructive clashes between the ego and the instincts, or between the ego and its environment.

From the point of view of psychiatry no such easy description is possible. To the psychiatrist the important question is the one concerned with distinguishing between a psychosis and a psychoneurosis, since treatment and pure theory are different for the two types. The terminal stage of many a psychosis, whether its progress be rapid or spread over many years, is dementia. And it is here that we may speak of insanity in both the socio-legal and the psychiatric sense; a dement is a person incapable of carrying out the demands of the instinct of self-preservation, incapable of responding to the demands of society, incapable of logical thought. According to this description, then, a psychosis is either a potential dementia, a partial dementia, or a fully-developed dementia. This, however, will not help us very much towards a clear definition. We have hinted at a description of the word insanity in a socio-legal sense, at the word dementia in this and the psychiatric sense, but we are left without definition of the concept psychosis.

As already stated, the psychiatrist is concerned with psychoses and psychoneuroses, and their differentiation, and no short-cut definition will materially help him either in diagnosing or in differentiating. But taking the psychoses as a whole,

and bearing in mind that they need to be distinguished from the psychoneuroses, we might say that a psychosis is a psychophysical state in which, unrealized by the individual, objective reality becomes displaced by imaginal reality, with resulting self-ostracism of the individual from the herd. That a psychosis affects the dual structure of psyche and body we have already seen, and shall have occasion to prove many more times when we study the various types. It is also a fact of observation and deduction that objective reality to the psychotic has become altered in quality and quantity through the greater insistence of the inner and imaginative reality, and that objectivity must in time give place wholly to subjectivity. With the progressive domination of the imaginal over the true reality there proceeds a gradual secession from society—a process which appears to be reversible, as has been proved in many cases of prolonged and enforced isolation of the individual. The delirious patient lives in a dream-world of his own; so does the manic and the schizophrenic. The depressive is so centred on himself that the outside world hardly affects him. The paranoiac, whilst still in touch with reality, sees it distorted by his own delusional productions. Alienation from reality therefore constitutes a major attribute of a psychosis, and this in turn depends on a restriction of the field of reality-consciousness. We use the term reality here as objective reality and the term consciousness as awareness. It is true that the psychoneurotic also sees reality with lessened or distorted awareness, but never to the extent to which this occurs in the psychotic; moreover, the psychoneurotic possesses insight of greater or lesser degree into his condition; and it is but seldom that society feels the need to ostracize him, however prolonged his condition.

The various psychotic syndromes present a rather heterogeneous mass of symptoms, and in the absence of certain unifying general principles of psychopathology and, in many types, of physical pathology as well, the symptoms would remain unintelligible. We have already referred to many of those principles, mostly of Freudian origin or psycho-analytic elaboration, and we shall further deal with psychopathology when describing the different psychoses.

The psychoses, then, may be divided into four main groups : (I) The Affective Psychoses or Reaction Types ; (II) Paranoia and the Projective Reactions ; (III) The Schizophrenic Psychoses ; (IV) Psychoses associated with Myoclonic States.

I. THE AFFECTIVE PSYCHOSES OR REACTION TYPES

These are : (A) The Manic-Depressive Psychosis ; and (B) Involutional Melancholia.

A. THE MANIC-DEPRESSIVE PSYCHOSIS

History.—The compound word manic-depressive is of comparatively recent origin, its implication being that the psychosis is diphasic or alternating. About the last quarter of last century writers on this subject frequently expressed the opinion that maniacal excitement always followed an "incubation period" of subdued mood or depressive irritability. The notion that depression and mania were separate and alternating phases of one and the same affective diathesis did not find explicit expression until Kraepelin, in his Clinical Lectures, demonstrated the now accepted theory that "acute mania was in every respect the exact opposite to certain states of depression ; that it was in itself nothing but a stage of maniacal-depressive insanity ; and that where we meet with maniacal excitements we are then able to draw the probable inference, not only that the excitement will recur often during life, but that states of depression will alternate with them." To this he added that single attacks had a usually favourable outcome.

Mania, it was believed, attacked by preference subjects of expansive and excitable temperament such as young persons and the female sex, and was liable to occur especially in the spring and during summer. The attack was described as consisting of a period of invasion, a period of culmination, and a period of subsidence. Likewise, melancholia was believed to occur mostly in timid, reserved, and scrupulous individuals, especially women. We see here an attempt at correlating pre-morbid personality and psychosis.

Much earlier still, about the middle of the last century, German writers placed on record the observation that mania

was not merely the uncurbed manifestation of the negative disposition found in melancholia, but that the latter appeared behind the exaltation as a shady background, becoming at times even dominant, and being then identified with the condition of "raptus melancholicus".

Under states of mental depression were classified hypochondriasis, or 'folie raisonnée mélancolique'; melancholia with stupor; melancholia agitata; melancholia religiosa; and suicidal melancholia. The existence of a 'folie circulaire' was at that time under discussion by French psychiatrists, and for some time afterwards this was looked upon as another form of mania and depression. At that time too Beard's Neurasthenia was included in the depressions; as was also delirium tremens, which was presented to the student as "a typical example of mania" (1887). The delusional variety of melancholia offered the least hope as regards recovery, and a list of some 60 delusions suggests that this must have been the precursor of what we now know as involutional melancholia.

Aetiology.—For our mainstay in aetiology we still rely on the information supplied by hereditary studies—although these have recently been largely negated by Tomasson (1941)—which would appear to favour the existence of a Mendelian dominant. What is inherited is the predisposition, or rather the thymopathic type, the personality characteristics. Investigation of the pre-morbid personality would therefore furnish us with the most useful data for understanding the essence of this psychosis or reaction type. The physical habitus, too, is suggestive, though here we must be more wary in assuming quite as much as Kretschmer, the originator of the theory, leads us to expect. He describes the pyknomorphic habitus, one of three main types of bodily structure, as being especially found in manic-depressives. They are thick-set people with rather short extremities, a roundish well-nourished appearance, and a fresh complexion; the distribution of fat lies in the face, neck, and trunk; the head, chest, and abdomen are large; the hands are short, broad, and soft. Pyknomorphs are contrasted mainly with the leptosomorphs, in whom schizophrenic reactions might be expected to develop.

From the psychic aspect such people have always lacked emotional poise, being overwhelmed by quite ordinary occurrences, very happy about trivialities, and much concerned about the feelings of others towards them, although they themselves show great variability in their relationship with others. Distractibility constitutes another important characteristic, and it shows itself mainly in changes of enthusiasm for jobs, cults, or beliefs, each in turn receiving a maximum of zest and energy output. It is during the period of his eagerness—sometimes amounting to a state of hypomania—that such a personality manages to improve whatever he touches. Many illustrious people can be reckoned amongst the manic-depressive personalities. The manic-depressive tendencies show themselves at a very early age, from three years upwards, in which states of sadness preponderate. The study of children in whom states of sadness occur reinforces our belief in the endopsychic nature of this psychosis, as the condition appears to be little influenced by external events; such a child will suddenly give up his playing and declare that he feels sad. Feelings of inadequacy, of frustration, or futility, often assail the manic-depressive personality, quite apart from any reference to real outside circumstances, although the latter may sometimes act as catalysts, as occasions, or even as symbolic reinforcements to an unconscious guilt-fantasy. Apart from the depressives, there are amongst pre-morbid personalities the manics, somewhat optimistic and aggressive people; and the irascibles, whose feelings of inadequacy are projected on to their immediate surroundings, dissatisfied, fault-finding, always ailing.

The age-incidence for the psychosis is placed between 18 and 40, women being affected more frequently than men in a proportion of 2 to 1. The first attack usually lasts from 3 to 6 months, and in 65 per cent of the cases this consists of a depressive phase.

Springtime and early summer claim the maximum of depressive attacks; whilst the daily peak of depression usually occurs in the morning.

Psychopathology.—Mania is a flight into reality, a thorough-going exaggeration of the extraverted personality

completely at the mercy of his environment, in whom repression has ceased to function efficiently. Depression expresses failure to deal effectively with the situation of the nature of a conflict, the defensive mechanism having broken down. Guilt, anxiety, and aggressiveness form the basis of the syndrome. Pressure of activity becomes a flight into reality away from the too insistent punishment fantasies, as it is also an attempt to gloss over a lurking depression. This would suggest that mania and depression spring from the same cause. Psycho-analytically the basis is extreme aggressiveness with oral and cannibalistic tendencies, combined with anal aggressiveness.

Fundamentally, then, the psychosis is a reaction emerging from the conflict between, on the one hand, tendencies of destruction directed towards the self and towards others, and, on the other hand, the restraining force of the super ego or ego-ideal. When this restraining influence is cast aside the patient, free from repression, enters the manic phase. This would explain his rapture, which otherwise would have no meaning since it is not referable to outer realities.

In order to understand these affective conflicts from the psycho-analytic point of view we must be prepared to evaluate their genesis from the birth trauma onwards. Following upon birth the mother endeavours to inculcate habits of cleanliness into the child; the latter therefore finds his id impulses restrained. Together with this there are the feeding difficulties of the breast or oral stage. Upon this follows the anal stage with its aggressive tendencies, leading to anxiety, with its attendant constipation (or incontinence). This constitutes the pre-Œdipus stage, and in the girl the aggression takes the form of jealousy of her father with hatred for the mother. The mother-hatred culminates in the Œdipus stage in a desire to have her disappear from sight and to take her place by the side of father, her own anxiety being at the same time centred around the fear of having to undergo some sort of mutilation (castration fear) in return for her previous aggressiveness and hatred. It may well be that this mutilation fear constitutes the unconscious motive for undergoing major operations later on, especially those of a gynæcological nature, on the principle

that to suffer the thing which is feared may be more tolerable than its fearful anticipation.

With the male the anal stage is associated with detachment from the mother, with aggression towards her and with fear of the father. During the Œdipus stage father becomes his rival, and conflict with anxiety develops over the threat of punishment (castration) by father.

Later childhood conflicts arise through vague sense impressions of coitus between the parents, or the death of a hated parent, or discord between them, or the pregnancies of mother.

In adult life reactivation of any of these conflicts may light up a manic-depressive reaction in those types of human beings whose personality and dispositions have been described above, and whose bias towards affective reactions is part of their psychobiological heritage. During the depressive stage we shall assume that a tremendous effort at repression has succeeded, not only in burying the elements of the conflict, but also all other psychomotor activity. The manic phase would then be regarded, not so much as a partial lifting of the repressive force with consequent fulfilment of the prohibited wish, as a masking mechanism for an underlying depression. It is as if the manic were carrying out on a heroic scale the injunction from his unconscious "Eat, drink, and be merry, for to-morrow we die"—a saying which, in its symbolism, touches the truth very nearly. The spectacle of an acute manic is more pathetic than that of a depressive; the latter realizes that he is in a miserable state, the former is merely putting on the bluff of fun and laughter in order to deceive himself. In manic behaviour the so-called infectious laughter soon turns to irascibility, which is the mark of frustration and hopelessness, and the herald sign of approaching depression.

Mania is, therefore, a state of self-imposed artificial joyfulness behind which lies hidden, not far from the surface, the depression which constitutes the fundamental element of the manic-depressive psychosis. The indivisibility of the syndrome is, perhaps, not so absolute as most text-books would lead us to believe, at least not to the extent of asserting that when there occurs an attack of depression we must also look

for a past or future attack of mania, though the obverse is undoubtedly true.

Symptomatology.—From the clinical point of view and for ease of description we shall take the two phases separately. It is on the external manifestations only that our diagnosis must rest. There are no known laboratory methods from which help can be expected in this direction. The clinical variants support the view that where there is mania there is also depression. Such a classification of mixed forms as the following (Sadler) brings this out: Maniacal Stupor; Agitated Depression; Unproductive Mania; Depressive Mania; Depression with Flight of Ideas; Akinetic Mania. According to Cannon no differences exist at the biological levels comparing with the gross behavioural differences; agitated and anxious depressions are apparently much closer biologically to mania than they are to the retarded or deeply pre-occupied depressions.

1. MANIC STATES.—

The differentiation between the various shades of maniacal excitement has its clinical, and certainly its administrative, advantages. It must be realized, however, that whatever subdivisions we establish within the sphere of mania they must be thought of as manifestations of the same clinical entity along a scale of varying intensities. The mildest form is known as Hypomania: this shades off into Acute Mania; the latter in turn may become Delirious Mania. Secondly, it must not be supposed that in any one given case the three grades need necessarily be passed through; a patient may begin with hypomania and never proceed further along the scale; he may, on the other hand, start his illness with a fully-developed delirious mania. Nevertheless, we frequently find on careful investigation, that the acute outburst is the culmination of a pre-existing state of mild euphoria of some days' or weeks' duration. Apart from these three grades there also exists a form of Chronic Mania, ending after some years in a certain amount of personality degradation, but not in dementia.

As already explained, where mania co-exists with depressive features, or vice versa, as described by those writers who would establish the existence of mixed forms as clinical entities *sui generis*, we adopt the view of the unitary nature of the

manic-depressive reaction; there is no mania without an underlying psychopathological basis of depression; even as we adopt the view of the unitary nature of the psyche itself.

The symptomatic foundation of the manic phase consists of excessive and exaggerated bodily movements (hypermotility), ceaseless talking, and the mask of gaiety. From such behaviour we infer, not that the patient is rejoicing over the fulfilment of a fantasy-wish, but that he is endeavouring to hide from himself, or to protect himself against, a threatening depression by filling in every second of time. It is by recording and investigating the utterances of the manic patient that we may uncover the nucleus of the hidden depression, and obtain insight into his wish-frustrations. In fact, by suggesting certain words relative to the details of his life's desires, ambitions, and failures, one may frequently induce the manic patient to associate freely and thus unburden his mind of the very substance of his complexes, the material of which may later on be used as a basis for analytic treatment.

Hypomania.—Here the patient is unable to remain still for many minutes at a time. He wanders from room to room looking for all kinds of jobs to do and setting about them all at random, never finishing any. He writes copious notes, in all directions of his writing paper, underlining various words with a variety of lines. He is full of schemes for the future and is anxious to put them into operation no matter the time of day or night. He interferes with everything that is going on around him and becomes angry and abusive if corrected or thwarted. His attention can be drawn with remarkable ease, but he is unable to concentrate for more than minutes or seconds. His speech production is profuse, but his stream of thought lacks direction and he plunges into one subject after another. As a rule he is amiable, good-natured, and sometimes amusing; on the other hand, he may be noisy, imperious, angry, and aggressive, shouting orders, accusations, and imprecations at those to whom he has taken a dislike. It is here especially that we may see the spectacle of depression suddenly breaking through the boisterousness, only to vanish as suddenly as it came. Although his energy output during the twenty-four hours is enormous he remains unaware of

the normal corrective of fatigue, and appears to be in need of no sleep. More often than not he intersperses his speech with lewd words and sexually suggestive remarks and his eroticism breaks the bounds of normal decency time and again. This description applies equally to women, to all classes of society, and to all grades of intelligence and upbringing. Yet in spite of his volubility and of his erratic association his speech will always be found intelligible, or at any rate externally coherent. Memory and orientation remain unimpaired.

Case.—An unmarried woman of 40, private secretary to a manufacturer, was admitted as a voluntary patient because she felt that she “needed a rest and a little time to think out a plan for reorganizing the factory.” She spoke at a very fast rate, and though her speech was coherent, subject after subject was referred to and skipped over in quick succession. She shook hands with everyone present as if they were people she had known before and had quite expected to be there. She gave the various articles of furniture an approving pat, moving from one to the other. She wanted to know if there was a swimming pool available and if she could borrow a car in the morning as she did not think she would be staying more than a day. She asked for writing paper and pencil and was soon busy writing to numerous people—notes and after-thoughts being scribbled at random across the envelope and round the address. Presently she jumped up and wished to know who was responsible for bringing her here. Gentle coaxing brought forth a torrent of imperious commands, after which she once more settled down to writing. She had no time for eating or drinking. At eleven o’clock at night she demanded to be released at once and to be sent by ambulance to a seaside place where she said she knew the Chief of Police.

She recovered at the end of six weeks, after which she underwent a short course of explanatory therapy. Four years later she was admitted elsewhere in very much the same state as described.

Acute Mania.—In this stage the patient presents the former picture much intensified. His talk is now incessant, and flight of ideas well marked. All his gestures are ample and large, and he cannot remain seated or lying down. If at all restrained he becomes violent and will attack those around him, often without any provocation. Imperiousness is especially marked, and his associations with the great and mighty in the land resound along the rooms and corridors. He brooks no contradiction or correction. The content of his speech

fluctuates between intelligibility and incoherence, and it relates to delusional success, power, wealth, and bigness generally. We usually find some clouding of consciousness, which does not, however, persist for any length of time; the patient appears to be dipping in and out of consciousness. Distractibility is extreme, the patient commenting on all sounds, movements, and objects in his vicinity, sometimes with uncanny aptness and a complete disregard for tact, politeness, or decency. His habits become dirty and he shows no concern over the disposal of excretions and secretions. His orientation is fitful, and he is apt to misidentify places and people. Paranoid trends may be present, and their projection upon someone nearby be fraught with some danger.

It must be borne in mind that when clouding of consciousness is at all marked we may be dealing with a toxic or other form of organic basis. The amnesia for most of the manic phase cannot be used as a retrospective criterion that the reaction was founded on physical illness; the acute manic produces such a wealth of talk and activity, and his attention is so distractible, that registration must be considered minimal.

Hallucinations may be present, but they are more of the nature of illusions. The manic patient's senses of hearing, seeing, feeling, smelling, tasting, are all in a state of hyper-excitability and hypersensitivity, and his cortical analyser is unable to deal efficiently with the rapid and constant bombardment by the incoming impressions; their interpretation is therefore likely to be false. Apart from this there is also the psychological factor: the patient is particularly liable to interpret the data of his senses both according to his mood and his complexes.

Case.—An unmarried woman of 35, a children's nurse, was admitted under certificate because she had become very noisy and uncertain in her actions towards all and sundry. She sang snatches of popular songs in a bawling fashion, and in between her singing she addressed everyone by imaginary names. On being placed in a separate room she promptly started to undress and to stuff all her clothes into a pillow-case. The bed was stripped and she lay naked on the mattress kicking her legs up in the air. Presently she began to shout lewd answers to imaginary voices and to fling bundles of clothing at imaginary people. Her hearing, sight, and

smell were extraordinarily sensitive ; in her normal state she wore glasses for distant vision, and her hearing was rather below average. Soon she became unmindful of her excretory functions and smeared herself with urine and faeces. She could not remain still for more than a minute at a time and never stopped shouting and singing. Tube-feeding and almost continuous narcosis had to be resorted to. Her condition remained practically unaltered for a whole month, after which she gradually subsided and made a perfect recovery, though without insight. Her employers insisted on her leaving the Home and therefore no psychotherapy could be undertaken. She relapsed twelve months later, having in the meanwhile discharged her duties in a satisfactory manner and without showing any obvious signs of mental abnormality, at least not as far as one could elicit from her relatives and employers.

Delirious Mania.—This stage of the manic phase in the manic-depressive psychosis presents perhaps the most striking and dramatic picture of all the acute psychoses. The patient is either in bed, where he is kept comparatively still and quiet by means of strong narcotics, or in solitary confinement in a padded room. He is now unquestionably hallucinated and shouts answers at imaginary voices. His speech and activity relate less to his environment than to a fantasy life of his own, and both are incessant. The content of his speech follows no plan, and shows incoherence rather than flight of ideas, as if the patient were moving and talking through a greatly accelerated dream play, with rapid and kaleidoscopic scene-shifts ; clouding of consciousness is never so profound that he does not react to chance remarks or the presence of others ; it might be more true to say that he is so intently taken up by his fantasy life that outside reality drops into an insignificant 'off-stage'. As a rule it is impossible to keep him clothed, and he is unmindful of even the elements of modesty or care of bladder and bowel. His wild impulsiveness, added to fleeting delusional and paranoid ideas, make him dangerous to others and frequently to himself. Co-operation is out of the question ; insight and judgment are absent. Amnesia covers practically the whole episode apart from a few days at the beginning and end of the illness. The delirious maniac may die of starvation and exhaustion unless he be artificially fed and kept asleep for part of the time. He is in all cases profoundly ill physically.

2. DEPRESSIVE STATES.—

The fully developed depressive state leaves us with no doubt whatever as to the nature of the condition. The external appearance, the slowing down of all activity, and the characteristic utterances form a complete clinical picture. The ill-defined and the mild cases, such as the perplexity reactions, the hypochondriases, many types of 'anxiety neurosis', are very frequently missed or misdiagnosed.

As has been said, it is here contended, on psychopathological grounds, that the depressive state is the foundation of the manic-depressive psychosis and that the manic state is a reaction to this fundamental depression. The so-called reactive depression, moreover, is a misnomer, unless we mean that the patient is reacting to painful unconscious material which threatens to invade consciousness. But a reactive depression to reality occurrences of a painful nature, such as the death of a beloved person or the breaking up of old-standing associations with friends, is in fact a reaction to unconscious threats to the ego which have been activated by such outside circumstances, the latter having acted purely as catalysts in the process, or as occasions.

Hypochondriasis.—Of the milder types of depression the hypochondriacs or chronic ailers form the largest proportion. Eighty per cent of the perennial visitors to the general practitioner's rooms belong to the class of mild depressives. They complain of backache, of indigestion or constipation, of headaches, leucorrhœa, inability to sleep, loss of appetite, lack of concentration, vague uncharted aches, a general feeling of being below standard in energy, a sense of futility generally, and a loss of *élan* for work or play. Frequently the doctor is hard put to it to formulate a diagnosis, and the label is often no more than the record of a prominent symptom. Seldom shall we fail to find, with appropriate psychiatric questioning, that the fundamental trouble consists of a mood change in the direction of dejection. The patient may admit being, in fact, depressed; or he may merely own up to feeling low, or despondent, or sorry for himself, or mopy. His relatives and friends agree that he has become irritable, dissatisfied with his work or with anything that is

done for him, but that he becomes more lively in the company of others. He is not obviously retarded, though this can usually be elicited on close questioning. Anxiety, or perhaps gloomy apprehension, will also be discovered in such cases, though this is as a rule merely an accentuation of a long-standing or even lifelong attitude towards reality. The type of personality which suffers from these periodic mild depressive states is one in which self-dissatisfaction is clothed in physical symptoms or projected on to the surroundings, and is totally unaware of the existence of inner conflict.

Perplexity Reactions.—Reactions are sometimes met with in which the depressive element shows itself by a slowing down of psychomotor activity, hesitant statements of a depressive nature, such as expressing doubts about relatives being alive or the patient's welfare being somehow at stake, and mild paranoid feelings. These are ill-defined types of depressive reactions and they may last for a considerable time; they are as a rule consequent upon a shorter period of self-imposed overwork, insomnia, lack of attention to meals, and general feelings of apprehension. Some writers (Storring) maintain that the transition from the state of anxiety, with its unaccustomed feelings of guilt and of being persecuted, back again to self-realization, leaves the patient wondering and in doubt as to the validity of reality. There can be little doubt as to the perplexity reaction being in all cases due to a quick succession of fantasy and reality in which fantasy was coloured by terrifying or emotionally alarming impressions. The fleeting perplexity following upon a frightening dream constitutes its normal prototype. The reaction is also well marked in certain schizophrenic episodes, and especially in that variety which occurs at or after 30 and which presents features of guilt, punishment, and paranoid fears and suspicions. We call them episodes advisedly, as their outcome precludes the more malignant diagnosis of schizophrenia proper. In all cases of the perplexity reaction search should be made for a toxic-exhaustive basis before diagnosing either of the foregoing.

The depressive nature of many cases of hypochondriasis and of wrongly diagnosed anxiety neuroses is brought out by the patient's statements of unworthiness, of imagined sins of

omission, of inability to do his work to the satisfaction of his employers, and so forth; by the restriction of his interests and the poverty of his thought content; and by his desire not to be troubled by meeting friends and relatives. From this state he has little further to go in order to reach the stage of frank depression with an all-pervading retardation.

The three basic elements in the symptomatology of depression are opposites to those found in the manic reaction. There is poverty in thought content and expression, mood depression, and psychomotor retardation, all three being present in increasing intensity from the simple types of depression to the depressive stupors. Again, as in the manic states, the types merge into one another imperceptibly, and there are no clearly defined limits between them.

Simple Depression with Retardation.—It is probably true to say that the psychomotor tempo always undergoes some slowing down in the presence of depression. When we speak of retardation, however, we refer to a slowing down of a degree which cannot escape the observer, or which, unlike the conditions found in the minor depressions, does not much alter under the stimulus of outside distractions. We also find some slowness in thinking and acting in cases of ordinary grief, which cannot well be considered pathological. In something like half the number of cases of depression we find recent severe mental stress as an antecedent. This, however, can never be held to be the cause, but merely an occasion for the re-activation of an old and deep-seated conflict.

In cases of simple retardation with depression we find that the patient has of late given up all enjoyable activities and that his work has become difficult. He prefers to sit quiet and does not talk except for monosyllabic answers to questions. If he speaks at all it is only to accuse himself of neglecting his duties towards his family and employer, of being a hopeless failure, or a caricature of his former self. Retardation can be noted by asking him a question, when a long pause will ensue before an answer is given, or, more frequently, muttered under his breath. All his actions are carried out, after much coaxing and persuasion, in a slow manner, as if he were thinking of something else all the while or as if he were not sure

of what was required of him. If he gets up from his chair he stands still, or makes a few paces forward, then stops, going on a few paces, finally to return slowly to his chair. His posture is one of flexion, all the flexor muscles of the body remaining active through lack of extensor antagonism. There is no clouding of consciousness; the patient is well orientated, and neither his appreciation of what is said to him nor his memory, recent and remote, is defective.

The striking fact about such patients is that they appear too pre-occupied with their inner thoughts of guilt and misery to switch over with speed to the requirements of external realities. But when they do so their utterances and actions are rational and relevant, and their understanding is unimpaired.

Case.—When first seen, a married man of 30 complained of the world being somehow different from what it was (to him) two years ago. Everything seemed to have an air of futility about it. There seemed to be no 'point' in anything. He admitted that he felt "down in the dumps", but would not say that he was actually depressed—though this was in fact the case, as witness his disinclination to move and to talk, and the presence of definite slowing down in his thinking and speaking. The perplexity furrows above the bridge of the nose, and the horizontal puckering of the forehead, were also conspicuous. His memory showed no trace of falling off; his speech was coherent and to the point; he was perfectly orientated, and his attention was good. He stated that his trouble began when, two years ago, he gave up fine art for commercial art, adding that he "had not been the same since". He felt drawn towards artistic creation, whilst at the same time he must not let down his present employers. He did not think he would ever do any good work again, and he felt quite sure that he was a failure in the world. He thought that he had not done full justice to his studio work, and that his present job (at which he had, in fact, scored one or two notable successes) had been given to him on the strength of his employers' false estimate of his qualities. He no longer took any interest in marital relationships and his small son "got on his nerves". He continued at work and refused any sort of treatment. Six months later he was still in the same condition.

From time to time we meet with a patient in whom no retardation is discernible but who nevertheless is profoundly depressed. It is here suggested that such a patient, when seen by the psychiatrist, has already passed through the

retarded state and has reached the stage of retrospection, a stage singularly fraught with the danger of suicide and with much outward show of misery and insight.

Again, feelings of unreality in depressive states are due to the pressure of the opposite forces of reality and of inner pre-occupation upon the ego, threatening the latter with imminent division, assailing it with doubts as to its own psychosomatic integrity. The view (Henderson and Gillespie) that feelings of unreality in depressives are due to a deficit of emotion is therefore only partially true; emotion related to the inner life is present in abundance, but the patient is made bankrupt thereby of any emotions relative to reality.

Acute Depression.—As in simple depression the attitude is one of flexion, in some cases almost approximating the intra-uterine foetal posture, with marked inhibition of all the extensors. The head bows towards the chest, the back is bent, the arms are bent at the elbows, and the fingers flexed. The patient looks down, and remains unoccupied and even motionless. He does not answer when spoken to, and when asked a direct question his reply is so long in being formulated and expressed that no conversation can be carried on. Often the answer is whispered or merely expressed in lip movements.

When retardation passes off, or when it is not so profound, the patient may venture remarks. These are usually of a depressively hopeless kind, and consist of self-accusations and self-derogation: he is responsible for all the misery around him, he is doomed, his eyes are to be gouged out, he is to be buried alive, his body is but a phantom and has no right to food, he is the worst sinner on the earth and beyond hope of redemption, no one has ever suffered as he has, and so on. The keynote of these utterances is psychosomatic disintegration, wished for and feared; the symbolism used to express them are partly those used in the patient's milieu, and partly derived from the racial unconscious.

Expressions of unreality frequently recur: house, people, time, everything has undergone a change, and it is all his fault. These presumptive external changes are the outward projections of the patient's own altered emotions, and they may

sometimes amount to illusions or even hallucinations, especially in elderly patients. Impairment of orientation may be demonstrated in some cases, but it is never marked. Apart from the depressive expressions, which are probably seldom true delusions, both memory and intellectual grasp remain unimpaired. It has been said (Bleuler) that the delusions of the depressive refer to what is still to happen to him; whereas those of the schizophrenic concern the present. With reference to this remark it is here suggested that the delusions of the depressive are not delusions in the true sense, but merely external symbolizations of severe anxiety about ego-disintegration. The implication is that this disintegration must of necessity refer to the future, but it is not actually believed in; it is subjected to the ambivalency fear-desire, that universal and deep-rooted duality of the human psyche.

Case.—A single woman of 78 gives a history of depressive episodes dating back thirty-three years and recurring with some regularity once or twice a year. During her depressive attack she sits in her chair, covers her face with her hands, rocks to and fro, and keeps her body almost bent double at the hips. She moans quietly to herself and repeats the phrase, with rhythmic regularity, "You are all deceived and I am a fraud." At times she knocks her head against the wall "to prove that she is not human and cannot therefore feel pain." She accuses herself of having caused all the trouble to which the world has been subjected for the past fifty years, and expresses the belief that she is doomed to live for ever in order to expiate her sins. Her facial appearance is one of intense self-hatred and aggression. On several occasions such an attack has passed over into a true depressive stupor, during which she is, to all appearances, unconscious of her surroundings and quite inaccessible. Although she could never be said to be affectively normal she has periods when, in all other respects, she acts in an eminently sane and intelligent manner: she follows world affairs with amazing insight, remains *au fait* with local affairs, busies herself with artistic needlework, solves complex crossword puzzles, and takes a practical interest in the running of the hospital. She has never been known to pass through a maniacal phase in her life, nor does she ever appear to be even mildly hypomanic. At the same time, during her normal phases, her affect is congruous to any situation that presents itself to her sheltered life.

Depressive Stupor.—Where there is profound apathy, complete cessation of all activity and of all ideation, we have

the condition known as depressive stupor. The patient has here reached, to all outward appearances, a state not far removed from simple vegetation. His consciousness is clouded, his face mask-like and set in the mould of anxiety, his body immobile and wooden, his response to stimuli absent or negativistic. The patient has to be kept in bed and tube-feeding resorted to. He becomes oblivious of bowel and bladder functions, though this is not invariably the case. Many recurrent depressives, especially when of some years standing, periodically sink into a stupor. This may be so profound that the patient is almost completely unconscious for hours, and even days, at a time, though he can be roused by strong stimulation. On emerging from this state he may when encouraged speak of his misery, and he will then express such thoughts as that he does not possess a body at all, that he cannot even die, that the whole world is standing still to see such wretchedness and desolation.

Physical Aspects.—In spite of much work that has been done on the physical substratum—if there be one—of the manic-depressive psychosis, nothing conclusive, nothing definite, nothing startling or even stimulating has been discovered. Certain physiological reactions can be elicited, certain blood-changes have been noted, certain general deviations from normal health can be demonstrated, or are patently observable. But still no light can be shed upon a physical theory for the genesis of this psychosis.

As one is here dealing with emotional reactions to unconscious stimuli, and as these reactions use certain pathways in the nervous system, a search for causation in the structure or functioning of the latter has frequently been made. The autonomic nervous system especially, as also its relation to the endocrine system, has been subjected to anatomical, physiological, and experimental investigation. The thalamus and the hypothalamic nuclei have likewise been the subjects of experiments. No centre for the emotions has, however, been proven to exist, although the thalamic area is believed to serve emotional awareness in a rudimentary way, the cortex in a more discriminative way, the two being kept in conscious continuity of feeling by the thalamo-cortical circuits. Valuable

though all this physiological research work is, it has helped the psychiatrist not at all in elucidating the mystery of the manic-depressive psychosis, in spite of its being an affective reaction. Amongst workers in this field we should mention Cannon, Cushing, and Masserman. Others (Zondek and Bier) have inquired into the metabolism of bromine. The normal blood-bromine content is 0.8 to 1 mg. per 100 mg. of blood. In manic-depressive psychosis there is a diminution of bromine to the extent of 40 to 60 per 100 blood-bromine, a diminution which is also reflected in the cerebrospinal fluid. Again, the sugar-tolerance curves have been found to be abnormal in this psychosis; the hyperglycæmic index is abnormally high, that is, hyperglycæmia is sustained after sugar ingestion; especially is this reaction found in cases where considerable emotional tension exists, and where, therefore, adrenaline is being poured out in quantity as a defensive mechanism. In mania and in benign stupor it is low.

Other observations have included such findings as over-compensation of the cardiovascular system, hæmorrhages into the thyroid, adenoma of the pancreas, hyperplasia of the suprarenals, atrophy of the pituitary, hyperplastic testicles, and glioma of the diencephalon, together with changes in surface temperature and rate of parotid secretion.

It will be seen that no organic pathology has as yet been proven to underly the manic-depressive psychosis. Amongst physical concomitants we should mention sleeplessness, constipation, loss of weight from disinclination to eat. Menstruation tends to become irregular and finally to cease, only to return with general improvement in the mental condition.

Chronicity in Affective Psychoses.—Cases have been recorded in which a manic state has lasted uninterruptedly for many years; others in which a manic state of weeks' duration is broken by a period of depression lasting only a few days. Depression may last for years, without any intervening mania. Periodic bouts of depression of some weeks' duration and occurring twice or three times a year, and never merging into mania or even hypomania, may recur during a whole lifetime, the free periods in between never lasting long

enough to warrant a trial of home treatment. Neither chronic mania, nor chronic depression, ever ends in any real dementia, though some measure of personality softening usually sets in; mood becomes shallow, emotion inappropriate to rational life, and egocentricity more marked.

Suicide.—Suicide is a major problem in all countries. The number of suicides in the British Isles has been computed at fourteen a day. No case can ever be said to be normal, depression being the most usual underlying cause, and constitutional predisposition an important factor, especially in the direction of defective personality integration.

Arrested psychosexual development has been put forward as the basic mechanism in a majority of suicidal attempts, the arrest having been determined by the unavailability of one or both parents as love-objects and as active forces in super-ego formation (Palmer). Early death or divorce of parents was a factor in 68 per cent of Palmer's, and in 60 per cent of Reitman's, cases. Though the combined total of both these writers' material was only 50, and therefore not of any striking statistical value, the findings are significant.

From the administrative point of view it may be stated that the determined suicide cannot be balked indefinitely; eventually he is bound to succeed, and he will choose his moment with uncanny calculation and foresight, usually during a spell of freedom from depression or shortly after leaving the hospital 'cured'. Attempts at suicide may be made by maniacs, psychoneurotics, depressives, sufferers from organic disease, and persons in senescence.

In order to explain the existence of a will to die Freud has postulated a death-instinct as part of our psychobiological heritage, even as he named its antithesis "eros"—or life-instinct. This fundamental dichotomy in the human psychic structure may appear to cut right across the principle of the desire to live. That it merely appears to do so is borne out by the existence of an equally strong wish for immortality, a state of being which is, clearly, only attainable via death. Some human beings seek eternal life by fostering and even precipitating their own death. Again, the sadistic (aggressive) component of the sex instinct is obviously not fiction. The wish

to hurt the thing we love has presented itself at one time or another to all of us : lovers' suicide pacts are common ; the death-wish of the schizophrenic son for the womb that bore him has received ample recognition ; and, in a more subtle way, the observation that some people are consistently 'unlucky' in life constitutes Freud's most startling attempt to prove that the death-instinct may manifest itself in multiple ways. With this dual component in our make-up we may assume that sometimes the one, sometimes the other, is in the ascendant, and that sometimes the two are in conflict with each other.

Tentatively one might put forward the suggestions that suicide is in all cases a retributive act ; that it therefore obtains its motive force from the super-ego ; that it constitutes a regression of libido to the anal-sadistic stage of development ; and that the mechanism is used by varying types of mentally ill individuals.

Diagnosis.—The differential diagnosis between the manic-depressive psychosis and other mental illnesses may at times cause difficulty. The following are some of the conditions from which the diagnosis has to be differentiated.

Schizophrenia.—The patient here gives no valid reason for his outbreaks, nor does he react with the whole of his personality, always giving the observer the impression of reserves not to be disclosed. His delusions are varying and senseless. A true depressive gives reasons that are understandable, whereas the schizophrenic is merely responding to a fantasy known only to himself. The real manic tries to get an audience, the schizophrenic explodes there and then, irrespective of who may be present. The pre-morbid personality will always be of paramount importance, the manic-depressive psychosis being based on a cyclothymic, extraverted personality, the schizophrenic on the introverted type, characterized by subjectivity and a lack of realism.

Neurasthenia.—Here we have no retardation ; the patient is prepared to grumble at everything to anyone willing to listen, for as long as the listener can hold out. Unlike the depressed person he blames everyone, never himself ; also, he is not truly depressed but merely dramatizes his grievances.

Epileptic Fury.—Occurs out of all proportion to its provocation ; a history of fits will help to decide the diagnosis.

General Paresis.—Neurological signs will have been discovered in this condition. The general parietic may show disorientation and confusion ; his delusions, when expansive, are truly grandiose and all-embracing. Serological tests should settle the diagnosis.

Cerebral Tumour.—Here again we should find neurological signs, but the differential diagnosis may be difficult.

Deliria.—The acute alcoholic delirious patient has terrifying hallucinations ; there are tremors, a history of excessive drinking, and the drinker's facies. The course of the illness is short. *Belladonna* sometimes causes a type of delirious fury, but with dryness of the mouth, dilated pupils, a flushed face, and a rapid, fibrillating heart.

Paranoia.—The irritable, aggressive, angry manic who expresses delusions of gangs and plots working against him, may suggest a diagnosis of paranoia. Here, too, the pre-morbid reaction pattern of the paranoid personality with its brooding, sensitive, suspicious asocial characteristics, should preclude a mistaken diagnosis.

Prognosis.—Single attacks before the age of 40 as a rule end in recovery in from 3 to 6 months, the shorter period being the more usual. It has been stated that exogenously determined types have a better prognosis than those in whom constitution and heredity appear to play a major part. It is here contended that outside happenings cannot of themselves cause a manic-depressive psychosis, but may catalyse or precipitate the outbreak of an already existing reaction-tendency which in turn is inherited and may also have been fostered during the individual's psychobiological and environmental development. Unconscious factors alone decide when the trigger shall be pulled, and it is left to the conscious and selective ego to choose the trigger, when the choice will fall upon those reality-events as shall most faithfully reflect in consciousness the unconscious wishes and fears of the individual.

The pre-morbid personality will to a great extent dictate the prognosis. But by personality we do not merely refer to the façade put on by the individual for the benefit of his

environment; we mean also the structure of the personality, its development through the years, and the moulding influences upon it by any particular experiences, real or fantasied. Interest in the welfare of others, plus a healthy interest in one's own welfare, denote a sound personality structure.

After 40 the prognosis becomes less good, and especially when the first attack occurs after that age. A tendency for manic-depressive episodes to occur many times cannot be denied, the probability of their recurring being much greater where the first attack occurs before the age of 25. Nevertheless, we should guard ourselves against worrying relatives unduly with gloomy predictions as to further attacks, since statistics (Noyes) do not warrant dogmatism on this point.

The more clear-cut the clinical manifestations, and the more closely they approximate to the classical manic-depressive description, the better the prognosis; cases with schizophrenic admixtures have a bad outlook, and this is especially the case in a typical depressive illness coming on before the age of 30.

Treatment.—The manic patient cannot spare either the attention or the time for eating; the depressive has his own reasons for not eating. The foremost indication is therefore to nourish the patient, either by encouragement and persuasion, by spoon-feeding, or by nasal-tube feeding. Enforcement of eating is our first duty towards the manic-depressive patient, or indeed towards any committed patient whose delusions interfere with the adequate taking of nourishment. Frequently the determined attitude of physician and staff upon this question, and the faithful carrying out of the tube-feed at the appointed time, have a beneficial effect in a matter of a few days, and the patient will decide to return to natural eating. A tube-feed of some 1200 calories and containing 35 g. of proteins consists of the following: 2 eggs; 60 c.c. malted milk; butter; 60 g. sugar; 2 g. salt; 100 c.c. cream; 500 c.c. milk; 30 c.c. orange juice; 300 c.c. water. Varied by adding, instead of milk and eggs, green vegetable water, meat extracts, and fruit juices other than orange.

The next necessity relates to adequate sleep. As we are here dealing with psychotics it may be assumed that home remedies have proved of no avail, and that more heroic measures

are called for. The number of soporifics and hypnotics is legion, and each establishment favours its own selection of these. From 1 to 4 drachms of paraldehyde well diluted with water, flavoured with orange juice, and given in conjunction with such a barbiturate as barbitone (gr. 5 to 10) or sodium amytal (gr. 3 to 6), acts efficiently, and should be given when the patient is in bed, if necessary with a nasal tube. Sodium amytal by itself, in 6-gr. doses, is usually sufficient, when given at bedtime, in hypomanic or depressive restlessness. This dose may be repeated four hours later if necessary, when its effect will carry over through part of the following day. It must be remembered that excessive doses of barbiturates may be followed by such symptoms as fatigue, ataxia, exanthems, and general dullness; the danger of establishing the barbiturate habit must be guarded against. Other drugs are sulphonal (gr. 30), veronal (gr. 10 to 15), potassium bromide (gr. 20) with chloral hydrate (gr. 10), and, in exceptional cases, hyoscine hydrobromide hypodermically.

Attention to bowel and bladder functions constitutes a matter of general nursing. It should be carried out in routine but unobtrusive fashion, at definite times of the day, and in such a manner as to establish or re-establish evacuation habits and to help to regularize and simplify life. Indeed, regularization and simplification of life, such as are provided in mental hospitals, give extraordinarily good results with most types of mental illness. Unfortunately, relatives and many doctors still hold the strange belief that mental hospitals are a last resort, with the all too frequent result that patients, depressives especially, are sent in on stretchers in an emaciated and dehydrated condition. No matter what the patient's social standing he should be treated in an establishment for the mentally sick. Here he will be free from worrying, though well-meaning, relatives and their eternal injunctions to "pull himself together"; here he will meet with sympathetic and unbiased understanding; he will receive treatment and consideration at the hands of a team of men and women whose working lives are devoted to this task; here also he will learn that there are tragedies worse than his own, and he will be given the impetus to return once more from his depressive solitariness to

the life of the herd. The manic as a rule is committed in good time, and for obvious reasons. On the other hand, hypomanics may do better with the greater freedom of home surroundings, but even such freedom can well be given in a mental hospital, where it can be tempered with a certain amount of ordinary discipline. It must be remembered also that the hypomanic becomes unmindful of eating and sleeping and drifts imperceptibly into a state of indifferent health, unclean, unkempt, worn out, and emaciated. All the patients should be weighed on admission, and thereafter every week, and any failure to put on weight, or a persistent loss of weight, should be investigated without delay.

It is a matter of everyday observation that such general treatment as here outlined, if faithfully and loyally carried out, results in improvement in a large majority of manic-depressives. Adjunctive measures may, however, be called for, especially in the manic excitements. Continuous warm baths are soothing, whilst some cases become more restful with cold packs applied for from 15 to 30 minutes. Sedatives, which should be withheld as much as possible during daytime, include paraldehyde 10 c.c.; sodium amytal gr. $7\frac{1}{2}$ intramuscularly; scopolamine gr. $\frac{1}{100}$ to $\frac{1}{80}$ with morphine gr. $\frac{1}{3}$ intramuscularly; and barbitone gr. 5 to 10, by mouth.

Prolonged narcosis, which is of doubtful value, consists in giving dial gr. 10 twice a day per rectum, together with feeds, and 400 c.c. of 5 per cent solution of glucose by the same route; 10 units of insulin are administered hypodermically twice a day during treatment with the above hypnotic. Symptoms to be watched for are an increase in the pulse-rate, a rise of temperature, suppression of urine, and toxic delirium. Prolonged narcosis has been used especially in schizophrenic excitements; many psychiatrists are averse to the method in manic cases.

The danger of suicide must be kept in mind. Especially prone to suicide are those who suffer from panic, much anxiety and tension, and in whom, therefore, the classical appearances of depression proper do not appear so obvious. Expressions of hopelessness, of futility, of self-depreciation; feelings of unreality and depersonalization; expressions of guilt, with its

need for punishment: all these should suggest the possibility of suicide. Panic reactions are always to be looked upon with suspicion; such patients may be actively suicidal, often impulsively and violently so. Supervision should be constant and yet unobtrusive, and the patient's promise that he would never harm himself may safely be ignored. Where there is a history of a relative, but especially of a parent, having committed suicide, the danger is great, and the probability is that the patient will choose the same way out of his predicament and by the same method.

As soon as the patient has emerged from the acute phase of his illness he should be encouraged to join in occupational therapy, which constitutes, together with superficial psychotherapy, our best weapon in combating the psychosis as it reaches the stage of convalescence.

Psychotherapy enters into the treatment of manic-depressive psychosis during practically the whole of the patient's stay in the hospital or home, both explicitly and by tacit implication. The former, the open form, should be applied after the patient has definitely entered the recovery stage. It consists in giving him an insight into his personality type and an understanding of the kind of mental dynamisms he is likely to make use of when, on the pretext of some external adverse circumstance, he finds life too difficult. His major breakdown must be explained to him as an exaggeration of his too frequently and too easily aroused mood-swings. Some of the manic's utterances during his acute phase may here be used to elucidate some of his complexes or to help him towards a healthier attitude towards his environment. As to the implicit, tacit form, it must be pointed out that the physician's rapport with his patient begins on admission and needs to be encouraged on a basis of trust and friendly co-operation from the very first day. Much harm may be done to this rapport through careless handling of the patient or to thoughtless remarks on the part of the physician at the beginning; the memory of the manic and the depressive patient with regard to events that happened during the active stage of the illness may prove disconcertingly good, and reproduction on recovery remarkably accurate.

Mention must be made of certain physical adjuncts in the treatment of this psychosis. Endocrine therapy has not, so far, proved of any value, nor have we, except for slender findings of excess of thyrotropin, and positive melanophore reaction in the urine, any real basis upon which to establish a therapeutic hypothesis in this field. The same applies to the theories of vitamin deficiency.

Electric convulsion therapy in psychotic depressions is being carried out extensively, but, as is usual with novel methods, the percentage of recoveries is somewhat exaggerated. It constitutes nevertheless an important form of treatment, and one of which the patient's relatives should be told and of which the patient himself should be given the benefit. It may, with equal promise, be administered to the manic phases. Hospitalization is undoubtedly reduced; insight, however, receives no stimulus and should therefore be helped by means of concurrent or subsequent psychotherapy; fear of a return of the disease is minimized by the knowledge that tangible medical aid may be counted upon. The fact that we are not in possession of a satisfactory rationale, whether physical or psychic, must on no account, of course, be allowed to weigh against the exhibition, in suitable cases, of convulsion therapy.

Treatment by frontal leucotomy is still largely an experimental procedure, and would seem, at the present stage, to be mainly advocated in mental illness of long-standing duration (excluding chronic mania) and in those especially where electric shock therapy has proved of no avail.

B. INVOLUTIONAL MELANCHOLIA

History.—Fifty years ago climacteric melancholia was referred to as an insanity of decadence. Clouston, in 1896, mentions depression, irritability, suspicion, fear of impending danger, and restlessness amongst the symptoms, but as he also speaks of maniacal types we are unable to accept his statistics of 7.2 per cent of admissions and 53 per cent of "uncomplicated cases recovered". Some twenty years earlier Skae had given out a "pathognomonic" symptomatology consisting of "a monomania of fear, despondency, remorse, hopelessness, passing occasionally into dementia." Bucknill

and Tuke gave a proportion of recoveries of 47 per cent. French writers of about this epoch spoke of climacteric insanity as being peculiar because of the fact that its sole causation was to be ascribed to physiological suppression of the menses, and also because it appeared to attack those women who had been able to keep insanity at bay all their active life in spite of all the physical and moral shocks that they have endured. They classified constant dread of some misfortune, fear of damnation, tendency to suicide, and melancholia as being the leading symptoms.

Wernicke's Affective Melancholia, by which he designated the depressive phase of the manic-depressive psychosis, was used by Rosanoff (1905) in the different sense of melancholia of the involutional period, or Anxious Melancholia. He also described another form which he called Delusional Melancholia, expressing the opinion that a mixture of these two is frequently exhibited by the same patient. Amongst symptoms he mentions paroxysms of anxiety, some mental confusion, despair, monotonous lamentations and negativism, raptus melancholicus with suicidal or homicidal attempts, and ideas of culpability, humility, ruin, and hypochondriasis. In spite of this clinical picture, however, he did not recognize Involutional Melancholia in the pure form, or as a syndrome *sui generis*, as modern writers now describe it. He mentions under the same heading agitated melancholia, stuporous melancholia, and delusional melancholia. His recovery percentage is given as 66.

In 1905 Kraepelin described the condition of Melancholia and stated that it differed from the depressive phase of the manic-depressive psychosis. His description included, in the first place, apprehensive depression without any external cause for the apprehension, but with much reference to past sins, to threats of poverty and violent death, and with expressions of the desire to die. He then compares the melancholic apprehension with "anxiety in a sane person". He stresses especially the great restlessness, self-reproach, and strongly-marked delusions of sin, of guilt generally, and of impending catastrophies, interspersed with monotonous lamentations. In men, he stated, the condition comes on at the beginning of

old age, in women at the menopause, the termination of the illness being generally favourable.

In establishing his distinction between the two types of depressive state he stresses, in the manic-depressive psychosis, the slowness of thought and action in the depressive phase and the lack of apprehension, as also its recurrent nature, its tendency to alternate with a manic phase (*folie circulaire*), and its incidence at an early age, as a rule.

Here, then, we have the beginnings of a clear conception of involutional melancholia as a depressive state differing in many respects from the depressive phase of manic-depression, a differentiation which has since met with almost universal agreement amongst psychiatrists.

Aetiology.—The age incidence of involutional melancholia lies between 45 and 60, the former predominating amongst women, the latter amongst men. Whether or not this kind of melancholia should be considered as being associated causatively with the climacteric is, in fact, a moot point. The majority of women are past the menopause, and in men the mental symptoms do not by any means correspond to the age when sexual power is declining. That a general involution sets in about the early forties in women, and later in men, cannot be denied. It is equally true that about this age a certain variety of depression sets in. But the causal link between the physiological and the psychological changes still eludes us.

In Great Britain the Celtic and Nordic types are more prone to this condition than the Latin types, the Scots representing the larger number. Such an ethnic (Gibson) factor would go to reinforce the hypothesis, for which there exists already strong presumptive evidence, that the depression of involutional melancholia differs from that of the manic-depressive kind, since the *pyknic habitus* prevails amongst the latter. One mentions, in passing, the fact that the Nordic *asthenic habitus* is also the most prevalent amongst schizophrenics.

Much is made in most text-books of the presence of precipitating factors, amongst which are reckoned death of near relatives, the loss of a home, unfortunate domestic

circumstances, financial difficulties, and so forth. Such a list is surely no more than an exhaustive enumeration of the various vicissitudes that are encountered in the lives of the large majority of human beings, both healthy and sick. It is here contended that these circumstances can only be proven to be catalysts in the outbreak of melancholia when, by psychological analysis, they are found to be linked up with a childhood experience, real or fantastic, which exerted upon the patient at that time a profound influence. Given a symbolic repetition of that experience in a certain type of personality, and at the physiological period when life's reverses can no longer be met with the verve and the mental resilience characteristic of earlier years, the stage is set for an outbreak of involutional melancholia.

Here, as always, we must take into account the pre-morbid personality as it was moulded and shaped by heredity and environment. Amongst abnormal hereditary factors are to be classed schizophrenia, neurasthenia, and involutional melancholia, in both direct and collateral lines. Some workers have also found mental deficiency amongst hereditary factors. Amongst environmental factors we have already mentioned the possibility of exciting circumstances in the restricted meaning given above. Rural populations provide a somewhat larger percentage than the urban ones, though the latter appear to break down at a somewhat earlier age, due, perhaps, to the greater demands of the more complex life of the cities. An unhappy childhood tends, in many of these cases, to fixate the psychosis more durably and to affect the prognosis adversely, as also do early or repeated psychic traumata.

The pre-morbid personality of involutional melancholia has of late been studied with a view to throwing more light upon the mechanism of this mental disease, which still presents much that is obscure. Studies on heredity have so far helped very little. Endocrine investigations offer nothing positive, and at best they have merely divided the number into types that do, and types that do not, benefit from the exhibition of oestrogenic substances. This finding should certainly be followed up, as it may well lead to a finer discrimination

within the class involutional melancholia and even to a revision of its description. Although we know that such a condition exists, and although we possess a fairly true descriptive criterion of it, we must remember that at one end of the age scale we encounter the depressives, and at the other the pre-senile state, the melancholics, the arteriosclerotics, and others. Indeed, it has been argued (Drobnes) that involutional psychoses, judged by their development and eventual outcome, might more properly be diagnosed either as manic-depressive psychosis or schizophrenia which has occurred late in life. This appears to be a retrograde step in the scientific approach to the question. It can surely not be argued that because an involutional melancholic shows depressive features, and another one schizophrenic features, they should be placed in totally different psychiatric categories and their major distinctive symptoms ignored.

The *pre-morbid personality* of the person who has developed psychotic symptoms at the involutional stage of life shows certain marks which are sufficiently frequent in their incidence to be looked upon as danger signs of future mental trouble. Such persons have been characterized by an exceptional avidity for keeping themselves busy, even to the point where they seemed to be driving themselves on to do things. Time is to them, as it is to obsessionals, finite, and work becomes infinite. Yet the future female involutional melancholic is not, for all her multifarious contacts in her busy world, a woman who would confide her troubles to others; she remains throughout the close guardian of her thoughts and feelings, though liberal enough with her opinions on the objective realities into which she throws herself. She is rigid in her opinions, sometimes to the point of obstinacy, even as she is rigid in carrying out her duties to the point of over-conscientiousness. So far, it will be agreed, she presents many of the features of the obsessional character, as indeed she will do during the course of her future psychosis. Above all, and throughout her lifetime, she has been excessively prone to worry over all things, whether done or to be done, and again this personality trait will abundantly show itself when she eventually breaks down. But in spite of all her

seeming activity she confines her attention to a very narrow world of interests; she appears to have exhausted those few interests by the time she reaches the middle forties, and is left with nothing but regrets and the sense of opportunities lost. Very marked, too, is her disposition to jealousy, with which is associated some sexual maladjustment. Nor is her jealousy the open and frank expression met with in the normal woman who usually has some reason, however tenuous, for her feelings; she carries her jealousy in a sensitive and introverted fashion, quietly submissive to what she considers an inexorable fate. It may well be imagined how, in such a personality, even minor social or moral transgressions may, later on in life, come to assume proportions of a devastating kind.

Psychopathology.—Much of the psychopathology of involutional melancholia is implicit in the personality of the patient, and the illness can occur only in that type. To this should be added that fundamental trait of all those who break down with an affective psychosis, which consists of a sense of insecurity resulting from a conflict between hate and love. These feelings refer especially to parents, and, when, later on, the patient fails to realize, as she normally should, that parents can never be the idealistic beings of her earlier life, this conflict becomes reactivated. Parent-surrogates are also used in the same way. Affective dependence upon the idealistic parent of childhood persists into middle life, and the melancholic's symptoms reflect its presence in primitive and childish modes of talking and acting.

The references to past sins and delinquencies, and the apprehension of punishment to come, are elements in the psychosis which need not surprise us when we know how rigid and over-conscientious the patient has been all her life. The symbolization of these prominent personality elements by means of delusional representations explains why the patient remains impervious to all assurances as to her probity, and why she adheres to her conviction as to the truth of her delusions. Having reached the stage when she is no longer able to drown her guilt-anxiety in a welter of motor activity she is forced to face the realities of her inner life and the

fact of her own personality tendencies; the knowledge that she has sinned and transgressed, and that for these misdemeanours she has always been taught to expect punishment, dawns upon her stiff and unyielding conscience. The youthful sin, to the repentance of which she should have vouchsafed time and reflection, has now sunk beyond possibility of recapture and atonement.

The involucional melancholic has suffered from the devaluation or loss of her original infantile love-object, usually the parent of the opposite sex. Her lamentations and her merciless denigration of herself refer, in fact, to this love-object. The mechanism in the Freudian sense would be somewhat as follows: the melancholic withdraws her libido from the original love-object, since this has been lost to her, and she has introjected it into her ego by some process of narcissistic identification, where it remains. The ego, henceforth, must receive all the aggression and spite originally meant for the discarded and hated love-object, even the self-destructive impulses.

To say, as some writers have done, that restricted interest in the things of the world brings in its train a pre-occupation with death, hardly fits the case of women in the early forties, or men in the late fifties, since none of these can in truth be said to have reached the threshold of the life hereafter. The idea of death occurs to the patient as a means of punishment for guilt, and not as a result of loss of interest. Ambivalence certainly exists with regard to death; on the one hand death is wished for as a retributive act, on the other it is feared. Suicide, the ultimate act of self-aggression, removes the fear and at the same time administers the *lex talionis*. Guilt feeling attaches to the childhood wishes for the death of the rival in the affections of the original love-object.

Belonging to the same order as the delusions of death and impending punishment are the delusions and apprehensions of poverty, which may be expressed variously as lack of food, clothes and money, poverty representing, symbolically, partial death.

Symptomatology.—Most of the outstanding mental symptoms have already been referred to under the historical

heading, as also the theory that we are here dealing with a syndrome distinguishable from the depression of the manic-depressive psychosis. Often the most striking element in the clinical picture is motor restlessness, unproductive and without aim. It is an anxious restlessness, as if the patient were merely walking to and fro, wringing her hands periodically or continually, in order to kill the time that must elapse between this moment and the coming of the dreaded catastrophe. It may be likened to the pacing up and down of a person anxiously awaiting the arrival of a friend about whose safety there is some doubt, or of an ordeal which has to be faced. The melancholic ruminates, with much show of apprehensive distress, over the imminent loss of her husband's love, of her home, of her children, of her personal freedom, and of her lost opportunity to make up for the past sins of omission and commission. These, and the dread of something painful to be done to her in the near future, form practically the whole content of her conscious thinking, and it is these fears which she expresses continually to whomsoever cares to listen to her, day after day, week after week. It is, in fact, possible when one knows the patient, to write out a short résumé of all that she says and thinks, and is likely to say and think for some weeks to come, without covering more than a single foolscap sheet of paper. The anxiety and apprehension may reach such intensity that the patient becomes aggressive and has to be restrained from either attacking others or doing violence to herself. Suicide is therefore an ever-present danger.

Restriction of the thought content, the repetition of her lamentations, and the presence of intense anxiety, have some of the characteristics of obsessional behaviour, except that the patient does not herself complain of their insistence and persistence in her mind in the way the obsessional does. The obsessional possesses insight and realizes the abnormality of his state; the melancholic realizes that all is not well with her and at the same time expresses belief in the reality of her delusional utterances.

Her delusions touch upon all that is important in the lives of all of us. They refer to the emotional question of lost affection or love; to financial solvency; to the stability of

home life ; to spiritual values as reflected in the good we may have left undone and in the bad of which we may have been guilty ; to the wholeness of our bodies and the continuation of our good health. Such a formidable list of all the possible evils that may befall a single person must, clearly, be looked upon as a symbolic representation, in the mind, of a common denominator, which in turn is to be sought and found in the unconscious realm in terms of guilt and the punishment thereof.

But in spite of her agitation, her anxiety, and her nihilistic delusions the involitional melancholic remains intellectually sound, and can hold a perfectly normal conversation whilst, for the time being, her pre-occupations with death and destruction remain in the background. Her memory and her orientation are good, and there is no clouding of consciousness, although perplexity and feelings of unreality may be marked. Sometimes paranoid trends show themselves, being the emergent manifestations of a particular kind of personality freed from repression.

Unlike the depressive, the melancholic shows no retardation either in speech or in action. Such patients will answer questions promptly and to the point, but always both the anxiety and the agitation are called into action, or are about to break through, whenever conversation with them is attempted or when it flags. As soon as they are left alone they return to their pacing and to their stereotyped lamentations.

Other manifestations of restlessness are nail-biting, screwing or tearing up handkerchiefs, or banging the head against the wall. Hypochondriacal symptoms are frequent, and the patient will express the most gruesome fears about her organs, the somatic delusions reaching the stage of complete nihilism and the denial of bodily existence itself. Unreality feelings may be marked, but they are not expressed by all melancholics by any means.

Case.—An intelligent, wealthy, married woman of 48 was admitted because, for some weeks, she had been wandering about the grounds of her house, night or day, wringing her hands, groaning and moaning. On admission she expressed a fear, in a fatalistic and resigned tone, that at last it “ had come to this—you know that

my body is rotting and you want to show me up for what I am—if only I had done my duty—what am I to do ! what am I to do !” These ideas formed the nucleus of all her speech and thought for some three months: she was physically ‘rotten’, spiritually bad, had failed in her obligations in life, and had now reached a frightening impasse; there was no hope for her, and some dread punishment must be expected. Her persistent and monotonous moaning penetrated to every corner of the house; she paced up and down the room, screwing up and finally tearing her handkerchiefs. She remained intellectually alert; memory and orientation were unimpaired; attention and concentration were interrupted by the insistent, nihilistic thoughts, but could be held for a short time. She could not be made to settle down to anything, and to sit still long enough for a meal was a most trying process. Day in, day out, the content of her speech was regret over the things of the past, and apprehension about what was to happen to her “presently”. Yet in spite of such obviously senseless utterances she remained in touch with the immediate realities around her and her comprehension remained undisturbed. At home she had always been an indefatigable worker, autocratic, unyielding, and her interests had never extended beyond the boundaries of her estate. She frowned upon all pleasures such as theatres and cinemas, and insisted on a rigid adherence to the very letter of the Bible. No one must smoke or swear in her presence, on pain of instant dismissal. Her mother had died when the patient was 35, and she blamed herself for two delinquencies in connection with this death: “The day before mother died I left the gas heater full on and then went downstairs to discuss the funeral arrangements with father.” All her troubles, she declared, dated back to that day.

Physically, the patient does not present symptoms commensurate with the profound depression and agitation, nor with the painful apprehensions of disease and impending death. Sleeplessness is invariably present. Anorexia is likewise a common symptom; the patient refuses food on the plea that she does not deserve such consideration, or that she has no money to pay for it, or that she would be eating the food belonging by rights to someone else; loss of weight naturally follows, and it may reach alarming proportions. Undoubtedly, too, with the wilful withholding of food, changes occur in the gastro-intestinal economy, with constipation, abdominal discomfort, and feeling of nausea. The patient becomes dehydrated and her urinary output decreases.

Other physical changes sometimes found are transient glycosuria and a high blood-sugar curve. Where a patient shows signs of precocious senility or arteriosclerosis, it is well to revise our diagnosis of involutional melancholia, as such signs suggest that we may be dealing with an organic psychosis or reaction-type. The late catatonic phenomena appearing in this, as in many other mental diseases, are merely the automatic remnants of movements which once had a deep meaning for the patient, and they should not be interpreted as schizophrenic manifestations. Some (Drobnes) have even gone so far as to suggest that involutional melancholia might be classed as late schizophrenia. Where such features are prominent and are followed by organic deterioration the illness should more appropriately be called Kraepelin's disease (Gruenthal), as it was Kraepelin who first drew attention to the organic basis of this type of late catatonia.

It will be seen that there is nothing florid about the mental symptomatology. We find depression without retardation, anxiety with agitation, delusions of nihilism and hypochondriasis, and feelings of unreality. Likewise, there is nothing striking or significant about the physical changes, which can mostly be related to the mental abnormalities, and not at all to the climacteric period as we know it from its minor and more usual signs, such as menstrual disturbances, and many vasomotor irregularities, and emotional variability. Yet there is evidence (Hemphill and Reiss), founded on the results of endocrine therapy, that some types of involutional melancholia have a basis of pituitary over-activity, some of pituitary insufficiency, with consequent under-activity of ovary, thyroid, and adrenals in varying combinations, or with hyperthyroidism.

Diagnosis.—Many of the major points in the differentiation of this disease have already been noted. Thus we have agitated depression without retardation, anxiety without the presence of a psychoneurosis, unreality feelings, and nihilistic and hypochondriacal delusions, together with the age-incidence. Where there is organic involvement or mental deterioration we should not diagnose involutional melancholia.

Further, we shall find no history of previous attacks of mental illness, no pronounced mood swings in the pre-morbid

personality, such as we see amongst manic-depressives. The pre-morbid personality, it is here suggested, stands out as a factor of major importance in the correct classification of any mental illness.

Some workers have gone so far as to complicate the differential diagnosis by positing the existence of such mental states as Involutional Paranoia (Kleist). Paranoid reactions are, in fact, quite frequently seen in otherwise straightforward types of involutional melancholia, and there is no need to separate paranoid-melancholic from melancholic-paranoid reactions. The same applies to Involutional Paraphrenia (Lerks), the Pre-senile Paraphrenia of Albrecht, and the Late Catatonia of Urstein.

The depressive phase of the *manic-depressive psychosis* is the most likely mental illness to cause doubts and confusion with regard to the diagnosis. The age of the patient should be our first guide; next to this we must consider the history of previous attacks, which would be negative in melancholia. Negative in the latter, too, is retardation, which usually constitutes a striking symptom in depression. Marked fear of imminent destruction and much restlessness point to melancholia, as do also stereotypies of speech and action.

In *anxiety psychoneurosis* the fears are not sustained all day, from day to day, whereas in melancholia they hardly ever leave the patient. Moreover, the anxiety psychoneurotic and the anxiety hysteric realize the unreasonableness of their fears, however much they insist on the presence of these; whereas the melancholic expresses true delusions of the most ghastly kind, states that she believes them to be true, and relegates them to some future date. There often is depression in the anxiety state, but it is not sustained, nor does it reach the depths of the melancholic reactions.

It is assumed that a physical examination and history will have ruled out to a large extent the possibility of *cerebral arteriosclerosis* being the cause of the psychosis. In this condition we shall expect to find retinal changes in the vessels and such signs of cerebral involvement as attacks of fainting, headaches, giddiness, impairment of memory, and fits. Sustained fears are, however, absent. Moreover, whereas the

melancholic shows a good and ready grasp of things said to her, the cerebral arteriosclerotic is somewhat dull and slow, and he is easily fatigued.

Prognosis and Course.—The percentage of recoveries amongst involutional melancholics during the first six months of their illness lies between 40 and 45. Many factors enter into the making of this type of reaction, and therefore the prognosis depends, not on one single factor, however prominent it might appear, but on a whole constellation of factors.

It was thought at one time that abnormalities of the endocrine system would prove to constitute the basis of this disease, but this is clearly not the case. Of more importance to the prognosis are the psychic and constitutional elements in the personality. Thus, a normal family life free from stresses and storms, and a childhood in which parental love and security in the home were the keynotes, provide material for a good prognosis. On the whole, endocrine therapy brings about amelioration in the simple type of illness only, whereas the severe psychotic picture is seldom altered thereby (Davidoff). On the other hand with convulsion therapy or frontal leucotomy we may expect certain changes for the better in the more severe types.

Favouring recovery are the presence of a strong affective element, the absence of paranoid ideas, and a pliable pre-psychotic personality.

Likewise, unfavourable to recovery are paranoid ideas, automatisms, insufficiency of affect, continued gross and ridiculous delusions, and any complicating somatic change such as cerebral arteriosclerosis. But above all, an unhealthy pre-morbid personality will seriously reduce the chances of recovery. This kind of personality is characterized by perfectionism, avidity, parsimoniousness, over-conscientiousness, lack of humour, lack of libidinous drive, in fact, rigidity. This rigidity develops, at the involutional period, into almost complete failure to adapt to the environment and especially to changes of any sort.

The course of the disease is variable, some attacks lasting a few months, some a few years. Amongst the former are the mild types, amongst the latter are the paranoid variety and

those in which somatic elements predominate. Few involutional melancholics make a social recovery under six months, many get well in twelve, some go on for three, four, and more years.

Shock therapy is said (Shelton) to reduce hospitalization of the involutional melancholics from an average of 63 weeks to 6 weeks. The depressive features in patients of from one to eight years' hospitalization are said to give way to brightness (Moore) under maintenance doses of electric shock. There appears to be no evidence to indicate that shock treatment may prevent future psychotic attacks, nor that it might interfere with spontaneous clinical recovery.

Treatment.—The treatment of involutional melancholia is best carried out in a mental home or hospital, both because of the patient's agitation and because of the grave risk of suicide. Moreover, as is almost invariably the case with all mental illness, both minor and major, relatives and friends are too emotionally biased in one direction or another to establish the necessary curative rapport, especially in prolonged cases.

As with the depressives, attention to feeding, sleeping, and a watch on possible suicidal attempts constitute the nursing triad. Loss of weight, dehydration, and lack of rest will as a rule have affected the patient's health before admission, sometimes to a profound degree. Tube feeding should therefore be instituted without delay in cases where such conditions exist. Care should always be taken to explain to the patient the reason for the treatment. The melancholic fears the future, and to her the future means anything from the next minute to the next month; a change of room may be sufficient to bring about an acute panic reaction; a tube feed for which she has not been prepared may be to her the embodiment of all that she has for so long feared—punishment, destruction, annihilation.

On the assumption that endocrine dysfunction may be a factor in the genesis of involutional mental changes oestrogenic substances have recently been introduced in the treatment. Menopausal women with symptoms, physical, mental, or both, appear to excrete a subnormal quantity of oestrogen and an excessive amount of gonadotrophins. The object of the

treatment is to supply the body with œstrogenic substances, in the form of theelin, diethyl-stilbœstrol, or alpha-œstradiol. The average dose of theelin is 10,000 International Units (Gibson), and the treatment takes from one to six months. Diethyl-stilbœstrol is administered in simple cases. Oral administration may lead to toxic effects, such as gastro-intestinal disturbances, vertigo, pruritus, and œdema of the eyelids. Alpha-œstradiol is administered intramuscularly. For further details the reader is referred to papers recently published on the subject. The severe psychotic picture remains unaltered by the treatment, but simple cases directly referable to endocrine malfunction are said to benefit by it.

Severe cases should be given electric convulsion therapy (E.C.T.), which is effective and comparatively simple to administer. A very small number of deaths has been reported, but complications of a lesser sort are known to attend this method of treatment. Amongst these should be mentioned the activation of a latent tuberculous lung focus, cardiovascular accidents, the induction of major fits, and skeletal injuries. The advantages of E.C.T. nevertheless justify the taking of such risks, and many workers are of the opinion that preliminary curarization diminishes the percentage of fractures. It would appear that the suspected existence of a tuberculous focus constitutes an absolute bar to convulsive therapy by means of electric shock. There can be no doubt that in E.C.T. we have a valuable method of treating involutional (and pre-senile) psychoses, both acute and chronic; it reduces the period of hospitalization very substantially in about 90 per cent of melancholics, who are able to return to their homes recovered or socially remitted, with or without insight. For a fuller description of E.C.T. and allied treatments the reader is referred to the *Journal of Mental Science* for 1944.

Insight should be fostered by judicious psychotherapy of a superficial kind. The patient must be given an explanation of how the mind works and how her particular type of personality is prone to the melancholic reaction at this somewhat difficult and transitional stage of life, and with the added risk of precipitating a suicidal attempt. Deep therapy of an analytical sort should only be resorted to by experienced

therapists and within the protective walls of an in-patient clinic. Combined with E.C.T., psychotherapy will give the climacteric a larger share of inner peace and freedom than she has ever experienced before and which the mere removal of gross symptoms alone can never yield. Let us remember that, valuable though convulsion therapy undoubtedly is, we are dealing with a phenomenally complicated mechanism in the shape of a human personality, and not with a jig-saw of cortical neurones alone. It is significant that shock therapy, which was originally intended for the treatment of schizophrenia, is so much more successful in the case of depressive psychoses, where the retributive factor for imaginary wrong-doing and the death fantasy as a means of escape form such important constituents of the mental content. It is true that electric procedure has ruled out much of the fearfulness attached to the cardiazol or insulin methods, but it remains nevertheless an operative measure, and one to which only the mentally ill, and more particularly the mental self-torturers, can be made to submit themselves.

CHAPTER IX

THE PSYCHOSES—*continued*

II. PARANOIA AND THE PROJECTIVE REACTIONS

History.—Arising from a chaos of concepts and theories paranoia and the projective reactions have recently undergone a more clear-cut crystallization into paranoia proper, paraphrenia, and dementia paranoides, the threefold division possessing as common nucleus the mechanism of projection. Without intending to give a full description of the nature of paranoia at this stage, we may define it as a life-long attempt at vindicating an opinion held in the face of contrary evidence and supported by complex-determined false inferences. In the projective reactions, on the other hand, and using the term in a generalized sense, we have an episodic reaction, frequently affect-determined, in which claims are made with much more consistency and in which judgment may become perverted to the point of almost complete thought dilapidation. The mechanism, or dynamism, of projection itself is, of course, a method used by the mind when faced by the insistent necessity of disowning an unpalatable quality of the personality, or an unconscious wish.

More than half a century ago German psychiatrists were using the term *Verrücktheit*, but von Gudden used the term paranoia to describe the mental illness of Leopold II of Bavaria. Much earlier than this the French called it *Folie Systematisée* and held that it followed either upon mania or melancholia, being characterized by absence of feeling, indifference except with regard to the fixed idea, delusions, hallucinations, and terminal dementia. Twenty years later (1887) it was referred to as *Monomania* arising from mania or depression, and issuing in delusions of persecution and grandeur.

Other writers about this time spoke of it as being allied to Moral Imbecility and originating in some structural weakness

of the nervous system, mainly of a hereditary nature. They looked upon paranoia as a chronic and progressive disease in which delusions and hallucinations figured prominently, in which reasoning remained untouched ; which was irrecoverable and did not end in dementia. A second form was described as Secondary Paranoia, subsequent to mania or depression.

Hack Tuke (1892) likewise assumed the existence of two forms of paranoia. The first he named Primary Delusional Insanity, which began early in life as oddness or crankiness. This was the Degenerative or Hereditary form. The second he refers to as the Psychoneurotic type, secondary to mania or melancholia, in which no hereditary factors could be discovered and which did not end in dementia.

In 1895 we find paranoia again divided into Primary Systematized Insanity (Paranoia Primaria), and Secondary Systematized Insanity (Paranoia Secundaria). It is described as a partial insanity, as opposed to the generalized forms known as the affective disorders. The primary, or degenerative, form is characterized by a system of delusional beliefs in which reasoning is otherwise intact and in which hallucinations do not occur. It is divided into subforms, amongst which figure the persecutory, the ambitious, the litigious, the erotic, the mystical, and the political.

In 1906 Kraepelin underlined the distinction existing between the paranoid patients whose reasoning remained sound and those who proceeded to dementia. The former he called Progressive Systematized Insanity or Paranoia, in which could always be discovered some fixed delusion, but in which no hallucinations occurred, no affective disturbances were noted, and which was not accessible to cure. Those patients who became eventually demented he placed in the category of what he called Dementia Paranoides. They hallucinated early, constantly changed their delusions, and showed emotional enfeeblement. He described yet a third type which he named Paraphrenia. This however, was rather less clearly defined and is not easily isolated as a syndrome in its own right. Nevertheless, in modern psychiatric teaching it occupies a useful place amongst the paranoid reactions, as we shall see later. So that here we have at least a sound

division of paranoid types, whereas up to this time they had been classified on the basis of acuteness of onset and duration.

From this time onwards psychiatric writers began to accept the clinical entity of dementia paranoides. In 1909 Tanzi divided his paranoiacs into mattoids, with abstract delusions, querulent, persecuted, erotic, and ambitious types, none of whom were hallucinated; the second great class consisting of Kraepelin's paranoid dementers. In 1911 de Fursac classified his paranoids into Dementia Paranoides, Systematized Delusional Insanity, and Paranoia. The first corresponds to Kraepelin's type, the last is equivalent to our present conception of paranoia. His Chronic (or Systematized) Delusional Insanity, in which hallucinations are prominent and the disease follows a progressive course towards dementia, he identifies with Magnan's conception of paranoia; it begins with hypochondriacal ideas, persecutory delusions with hallucinations, goes on to delusions of grandeur, and ends in dementia after many years.

This short survey brings into relief the main features of the paranoid reaction types as they presented themselves to observers of the past eighty years or so. They were all agreed on delusions of persecution being present. Matters for disagreement, however, were numerous, and some of these remain to this day. Did paranoia begin with an affective disturbance? Was it a kind of intellectual perversion, or a moral imbecility? Why were some patients hallucinated? What type of patient was it that became demented? Why did some become demented early and their delusions lose their unifying thread? Why did others remain faithful to their delusional system and only late in life show signs of thought dilapidation? What was the importance of hereditary factors in the genesis of paranoia? What evidence was there for assuming the existence of a primary and a secondary form? Was the sequence hypochondriasis—persecution—grandeur an invariable one?

To this day these questions beg a complete or satisfactory answer, and from them has proceeded the modern assumption that three major types of paranoid reactions might be distinguished: paranoia, dementia paranoides, and paraphrenia.

Aetiology and General Considerations.—Paranoia and the paranoid or projective reactions have so far failed to yield anything significant in the direction of aetiology as this term is usually understood in medicine generally. The main questions arising in connexion with aetiology are the personality type, the relevant environmental factors, the type of illness chosen by the patient, and the hereditary tainting; also, perhaps, the object or reason for the breakdown. As far as is known the aetiology of paranoia relates almost entirely to the personality structure.

It is possible that paranoid states form a graded series, with dementia paranoides at one end and paranoia at the other: that is, unstable and unorganized delusions with a break in psychic unity at one pole, and the vigorous development of a system of quasi-rational delusions at the other. Paranoid reactions occur in a variety of psychiatric conditions, in all of which the delusions are mobile and frequently contradictory. These conditions are schizophrenia, alcoholism, the manic-depressive psychoses, involutional melancholia, the senile psychoses, and general paresis. For our purpose we shall take paranoia itself as being the projective reaction come to full maturity in a person who shows no other division or fragmentation of psychic structure, whose reasoning powers on matters other than his delusional scheme are yet intact, who professes a strong conviction regarding his delusions, possesses good self-control, and shows boundless egocentricity and calculated reticence.

Such a mental state, then, constitutes the end-result in the maturation of a specific kind of personality, of a definite type of constitutional make-up. One of the main characteristics of the future paranoiac is sensitiveness: he is sensitive to others and to the impression he makes upon others. And it is precisely in the realm of social contacts that he begins to fail early on in life, his defective socialization forming the basis of his future delusions. By sensitiveness we mean that easy and ready response in certain preselected directions, rigidly adhered to, and preventing the person from altering his perspective or from sharing the perspective of his environment. His theories and hypotheses, therefore, fail to be

subjected to such corrective influences as the opinion and viewpoint of others should normally bring to bear upon his thoughts and behaviour. He lacks that social skill, in giving and taking opinions, which separates the social from the asocial individual.

His sensitiveness is matched by his shyness, the latter being in large measure the external symbolization of the former. The person who is shy is one who is set in anticipation of what his sensitiveness might bring to light, when he enters the company of others: the terms are correlative. The exaggerated degree of his sensitiveness to others generates, by a process of projection, a ready flow of suspicions or of suspicious trends, which are at first susceptible to contradiction from outside, but which, nevertheless, leave behind cumulative traces. The paranoiac nurtures a strong tendency towards self-emancipation and is possessed of pronounced ambitions. These are, however, not commensurate with his endowments, since they consist largely of theoretical, vague, and quite impossible schemes and dreams of self-inflation. Neither is he sufficiently practical to plan his life and his activities along lines calculated to lead to any social or financial heights: his dreaminess and his egocentricity form the main obstacles to his rise in a world which is objective and harshly competitive. He is rigid in his opinions, and in early youth begins to show evidence of fixed attitudes and ideas, amongst which prudishness stands out prominently. Jealousy and facile criticism of others show up early as a reaction pattern to his own feelings of inadequacy and his felt doubts about an ever receding and unattainable goal. Upon such a soil suspicion must sooner or later begin to thrive, followed by much brooding, and a constant fearful anticipation of the future, and distrust of his environment generally. If there should be added to the life of this type of person some physical handicap, some illness, some disappointment, some dominant affective experience, or some specific failure of plan, a paranoid reaction must surely develop.

The age at which the paranoiac comes under psychiatric observation lies between 40 and 50, and the starting-point is usually an actual occurrence. By far the largest number

are males. Little is known of the genetics of paranoia: some workers hold that it is related to schizophrenia, some to manic-depressive reaction types. Many theories, none of them scientifically adequate or satisfactory, have held the field at various times. Most of these make mention of a constitutional predisposition, some of homosexual fixation; others underline the presence of those characteristics mentioned above, such as suspicious tendencies, sensitiveness, frustration of inordinate ambition, and ready fatigue; others, again, point to the working of such complexes as inferiority and guilt.

Psychopathology.—The delusions of the paranoiac, therefore, constitute the final and inevitable method of reaction of the kind of personality just described. His defective socialization and his anti-conventional tendencies have at last put him at odds with the world in general, upon which he is now prepared to let loose his suspiciousness, his pride, or his mysticism, his selfishness and his egocentricity. He has become morose, conceited, and credulous, and altruism is to him an unknown human value. The qualities with which he has secretly endowed himself in imagination have failed to meet with general appreciation; jealousy and suspicion become intensified. The finer shades of human relationship have become obscured, his pride and his vanity have been converted into ambitiousness and ego exultation, and his suspiciousness and jealousy are now interpreted as conspiracy and persecution. Upon these follow ideas of reference, the finding of hidden meanings in everyday occurrences, and the discovery of his own warped dispositions as projected on to his environment.

The paranoiac tetrad is now fully established, and is made up of pride, suspicion, rigidity of opinion, and faulty interpretation or judgment. His judgment comes under the domination of complexes and of fixed, over-determined ideas, which latter exert a selective influence upon his observations, his inferences, his associations, and his memory, thereby greatly narrowing his whole field of interests and of awareness. Like the other psychogenic reactions, hysteria and obsession-compulsion, paranoia is influenced by those complexes which touch upon the primitive impulses, the sexual amongst these

being by far the most powerful. Thus we shall find in the deeper psychic layers, and frequently in the superficial layers of experience as well, such experimental material as masturbation, impotence, and perversion, all kinds of sexual scruples and sexual fears. Indeed, we believe that all paranoiacs will, upon sufficiently thorough analysis, present most, if not all, of these sexual aspects. They will scruple over masturbation, they will mention fears of impotence being brought on by mysterious influences, or of venereal disease being either imputed to them or given to them in some underhand manner, or of foul sexual acts being practised upon them during sleep or when under the influence of drugs administered unawares. But above all, we shall find, hidden behind much conventional symbolism of social honours denied to them, of vast sums of money withheld from them, of colossal conspiracies hatched against them, the dreaded threat of a lifelong homosexuality hitherto successfully repressed. Freud has stated that paranoia invariably arises from an attempt to subdue unduly powerful homosexual tendencies.

He considers that the delusion of grandeur is the direct consequence of the inflation of the ego by the libido withdrawn from the investment of objects. Delusions of persecution he explained thus: the persecutor is, in the majority of cases, of the same sex as the person persecuted; moreover, the persecutor proves to be that person of the same sex who had been most beloved by the patient while he was normal; finally, this person becomes, by an ordinary process of association, replaced by someone else. Freud's conclusion from these observations amounts to this: that paranoia of the persecutory type is the means by which a person defends himself against a homosexual impulse which has become too powerful. The conversion of the loved object into a hated object corresponds, then, to the conversion of libidinous impulses into anxiety, which is the usual result of repression.

Heterosexual urges, if they exist, are immature. Other basic factors are narcissism, inferiority feelings, and sensitiveness, the latter two proceeding from strong homosexual tendencies. From these tendencies, active at the deepest levels, also proceeds the paranoiac's failure to undergo

satisfactory socialization. Defective socialization, in its turn, throws the individual upon his own picturization of his environment and upon his own reactions to the environment, instead of acquiring the normal person's methods of measuring the self's reactions against the reactions of others. The result is a steady stiffening of perspective, a progressive loss of elasticity in his attitude towards others and towards their reactions to himself. Having failed, over a period of years, to submit opinions and attitudes to the purifying influence of other people's opinions and attitudes, the paranoiac is left with nothing but surmises and inferences which he eventually comes to organize into a system, but a system which is only valid in the small inner universe which he has created for himself. These inferences and suppositions at last break bounds, and the paranoiac foists them on society in the shape of delusions.

Symptomatology.—

I. PARANOIA.—

From what has been said so far it will appear evident that the symptoms of paranoia merely represent the blossom of the bud which was already discernible around the age of puberty, and earlier. The paranoid child is the sullen revolutionary of the nursery and the schoolroom, who prefers his own company to that of others, because in his little world of fantasy all contacts are shaped to his own liking and all persons are subjected to destructive criticisms without option of retaliation. He suspects his teachers of singling him out for punishment, others of mocking him or of informing against him. He is subject to mood swings, changing, without or with external provocation, from sadness to irritability, resentment, and sulking. He is jealous of small favours conferred on others, and critical of those conferred upon himself. He is incapable of admiring or appreciating the successes of others, whilst vaunting his own on every possible occasion. This vaunting, though at first sight it might appear to place in relief a high degree of self-certainty, covers in reality a profound sense of inadequacy, which itself is the outcome of that discrepancy, mentioned above, between ambition and endowment. On a deeper level, however, lack

of endowment becomes, most probably, lack of sexual normalcy or even lack of sexual potency.

When the paranoiac first comes under psychiatric observation he already possesses a fully documented history of the evolution of his delusional scheme ; it is only in later years that the scheme shows signs of dilapidation and of the encroachment upon it of fantastic elaborations. Assuming that we have gained the confidence of the early paranoiac and have broken down his reticence we shall find that most of his symptoms refer to bodily complaints, and it is only later on that we discover that the physical has been but a blind for the mental : behind his constipation or his skin rash lurks the delusion that someone is trying to poison him or to put him to sleep with subtle drugs subtly administered. Secondly, we shall elicit from him the information that the attack upon his safety or upon his honour started on a definite date, day, and even hour, and may date back twenty years or more. The actual initial episode is usually historically true, but instead of the delusional scheme evolving therefrom in forward time sequence it has been worked in retrograde fashion towards it. Moreover, this working backwards towards the first telling episode is fraught with retrospective falsifications, some of these being incident to memory defects of a natural order, but most of them being called forth to serve the prevailing delusion.

Following upon the period of hypochondriacal self-analysis and solitary incubation of grudges and disappointments, there comes a time when the patient, asocial and uncompromising as ever, sets out to impute his unhappy state to some influence outside himself, an influence mainly motivated, in his now perverted opinion, by jealousy and enmity on the part of others, high or low, near or far. The search for an explanation now proceeds apace, the first cause of his troubles having once for all been located in the minds of those around him and thus projected away from himself. And with this first attempt on the part of the mind to disown the unpalatable and intolerable part of its own contents by the mechanism of projection are laid the foundations of what is to become a delusional structure with lengthy and devious ramifications.

The course so far described would appear to be the most usual and frequent one in cases of classical paranoia. There are, however, types of paranoid reactions which do not fit this pattern so closely. Thus, hypochondriasis may be absent and its place taken by ruminations over failures regarding the sex instinct and its sublimations, the projective method being then invoked to avert responsibility away from the self. Other types of paranoid reactions will be described later.

Once the delusion has begun to occupy the mind, it forms, as it were, a second ego-nucleus which may, perhaps for many years, remain dissociated from the ego proper, but which will need to be fed and strengthened by further evidence to be gathered in its favour. The delusion will in this way develop in depth and extent by daily accretions in the shape of false inferences from observed facts and of ideas of reference. In this way the most disparate and unconnected events in the patient's daily life are linked up in his mind and made to serve the delusional structure. He sees in the most harmless accounts in the newspapers, in speeches or readings over the wireless, references to himself, to his supposed secret sins, to his shortcomings, to his appearance, or to his ambitious plans of greatness. The time will come when the delusion, no longer containable within its dissociated sphere, irrupts into the fully aware, everyday life of its host and becomes manifest to outside observers. More than ever the patient is put on his mettle to find proofs for his contentions : ideas of reference multiply, false inferences abound from day to day, and, in default of material from the present or immediate past, he searches ever the distant past for evidence that shall, by its very structure and reasoning, confound those who dare to disagree with him. The many rebuffs he has received at the hands of those to whom he may have tentatively confided some of his suspicions has made him more asocial or more reticent. He indulges in his fantastic schemes on his own ; he gathers evidence and makes copious notes ; he writes to the press anonymously ; he stiffens his attitude towards all and sundry ; he adopts symbolic gestures and acts which represent in shorthand form vestiges of whole trains of past reasonings and calculations ; he lays plans and traps whereby

others shall be caught and shown up to his own advantage ; finally, he may put plots into practice and attack or kill the imaginary enemy in the person of some innocent victim.

If, however, he does not come into conflict with the law, he will after many years begin to show a certain simplicity and childishness in his overt inferences and in his delusional assertions. His scheme, so assiduously put together during the better part of a lifetime, becomes less cohesive, and the patient himself, though as convinced as ever of the rightness of his beliefs, loses his aggressive tenacity in the fight for his cause.

On the other hand, his suspicions of persecution may by degrees become metamorphosed into delusions of personal greatness, which in turn will lead to a partial or complete transformation of the personality. Thus, the minor civil servant into whose life bishops and prime ministers have spread their nefarious machinations for many years, finally assumes the role of lord and master over them all, and forthwith proceeds to live up to his newly acquired importance. With this ultimate transformation goes, as a rule, a sense of well-being and a sense of that security which hitherto had been absent from his life ; indeed it may be said that the unconscious feeling of insecurity in a personality of the kind described above, constitutes a fundamental element in the paranoid reaction. The feeling of insecurity, always vague and unformulated at first, has its roots in infancy, possibly in intra-uterine life, and, at any rate to some extent, may be handed down in the germ plasm.

The particular type of fixed idea which develops itself in the patient's mind and eventually activates his delusional scheme is the product of those innumerable factors that enter one's life and which it would be difficult to particularize. Perhaps some affectively outstanding event finally settles the choice—or does it merely accentuate a pre-existing personality trend ? A legal experience resulting in a court decision against him will set him on the path of persistent litigious activities of which the sole purpose is to prove to himself that he cannot be wrong, for to be proved wrong is intolerable to him. Or the delusion may issue from some religious experience, and

the patient becomes the leader of a new sect, a prophet, a second world saviour, a god without sin or guilt. Again, he may boast of inventions that will revolutionize the civilized world, and spends his time, money, and energy on some worthless unscientific contraption. Another type of delusion concerns the sex theme, in which the paranoiac fancies a woman to be in love with him and he with her, the whole transaction remaining one-sided and on a strictly intellectual and abstract level, since any carnal advances would be bound to show up his infantile sex fixation and to founder on the invisible rock of his homosexuality.

It should be emphasized that not all paranoid types of reaction develop into paranoia, and that, as in the case of many other mental illnesses, one meets with episodic attacks of a paranoid colouring lasting a few days or weeks. These abortive forms have only this in common with the general class paranoia—that they exhibit false inferences and passing ideas of reference. None of these symptoms possesses the strength or duration of true paranoia, nor are the delusions of persecution held with the conviction of the paranoiac. At the same time we may postulate in these cases the presence of those personality traits so characteristic of those suffering from the major disturbance—namely, egocentricity, rigidity of opinion, and sensitiveness, to which must be added as a precipitant the occurrence of some event adverse to the patient's own representation of himself, conscious or unconscious. There are people in whose lives, and throughout whose lives, we may discern a set of well-defined over-valued ideas which, by their very strength and tenacity, can and do direct, mostly to their holder's detriment, the general flow and tenor of all their thinking, feeling, and acting. Precipitants of a paranoid reaction are mainly those which touch upon these over-valued ideas and opinions. But the reaction is shortlived and does not attain the quality of a system.

The mood in true paranoia should remain, theoretically at least, strictly in accordance with the dominant false beliefs. During the period of rumination and during the period of persecutory evolution the paranoiac is serious, disinclined to laugh, and borders on the depressive mood. Even in his

moments of spurious greatness we may pierce the mask and find, behind all his stilted pronouncements on success and victory over his enemies, the sad mien of the persecution maniac. But incongruity of affect, as we understand it in clinical psychiatry, is absent.

Intelligence, memory, and attention, as judged by everyday standards, are unaffected whilst the delusions remain fairly encapsulated. Indeed, the intelligence of the paranoiac is frequently of a high order and his achievements in this sphere might be of some consequence were it not for the gradual and paralysing infiltration of his strange schemes and systems. The latter will eventually undermine intelligence and reasoning and will ultimately render him unfit for socialized intercourse. More than ever before he now stands alone, whether he is in the midst of persecuting enemies or on the pinnacle of his vaunted grandeur, and it is at this stage that the walls of the mental hospital must, mercifully, close around him.

Case.—A single man of 55, a High Court official, came under psychiatric observation on account of certain peculiarities of behaviour. For instance, he had fixed a set of loudly jangling bells to the door of his office, to the annoyance of the many other users of the building. Of late, too, he had begun to hand out notes to the various people employed there, upon which he had stylographed the words, "Beware of the man in the yellow car". The owner of the car was a retired magistrate who had befriended the patient some twenty years previously and had been instrumental in placing him in his present job.

After the first somewhat difficult and precarious formalities of introduction had been safely negotiated, and the patient had been given to understand that he was in fact now being interviewed by a psychiatrist on account of his rather unorthodox behaviour, he gradually began to unfold an exceedingly lengthy history which, in the course of three interviews, had reached back as far as the fourth year of his life.

The outstanding episode, however, happened on a day some thirty years ago when someone, at a private house party, had asked him to sing a certain song which had then just appeared, and for the performance of which the patient had ever since felt he owed the composer a fee or royalty. Unfortunately, the composer's initials were the same as the patient's. More unfortunately still, some five years later the magistrate who befriended him was playing this tune on his piano at the very moment when the patient first entered his house for a preliminary interview.

From this nucleus of fortuitous occurrences, in the years that followed, a whole system of inferences and deductions had gradually been evolved—or, rather, it was towards this nucleus that the patient had, laboriously and falsely, traced back his system of persecution. References to him were now being made in newspapers, on the backs of envelopes, on the wireless, and in Court. Boys in the street whistled the song as they cycled past him. Cars carried his initials on their number plates, and the police were watching his own car wherever he went. A “vast sum” of money was being withheld from him—money due to him for “certain political activities of the highest order”. It was being withheld pending inquiries into “certain sexual malpractices” which he was supposed (without foundation) to have performed on a boy of 15. Then there was the question of some high honour to be bestowed on him by the King. This he had been obliged to refuse until his name had been cleared.

Two years after the first interviews he was showing signs of failure in his system of reasoning. He now refused to send his linen to the laundry because they accused him of masturbating in bed; the composer of the song was instituting secret proceedings against him; his landlady was in league with the magistrate and was administering soporifics in his food; the Home Secretary had referred to him on the floor of the House of Commons as a pestilential evildoer; a certain Archbishop was threatening to expose him as a moral pervert; his old University had erased his name from their books; and so on, *ad infinitum*.

He was eventually pensioned off, after which he moved to another town in order to escape his enemies and to save him from taking drastic action against them.

2. PARAPHRENIA.—

The true paranoiac, in the heyday of his delusional life, strikes the psychiatric observer as being the intelligent possessor of a rationally constructed system of assumptions and deductions based on false premisses and logically supported by complex-determined proofs and inferences. It sometimes happens, however, that the structure of the system shows signs of loopholes, that the delusions lack cohesion, and that, moreover, the sufferer has been compelled from within to call in the aid of hallucinations. If, besides these distinguishing marks, we find that the false beliefs are of the florid type and that the patient gives evidence of personality deterioration, we are in the presence of what Kraepelin has designated paraphrenia.

It must be admitted that Kraepelin's paraphrenia is not at all a well-defined clinical entity. But it serves the useful purpose of giving the clinician one more landmark along the continual, horizontal, grade-line of the projective reactions, of which the better known psychotic representatives are paranoia and dementia paranoides. Paraphrenia usually occurs later in life than the other two psychoses, and always appears on a schizophrenic background. Although the delusions are fixed they do not, as in paranoia, attain perfect organization in structure, and they exhibit instead much colourful elaboration. The intellect, as such, remains good, but the personality tends to disintegrate. Compensatory hallucinations of the auditory kind are invariably present.

Case.—A respectable married woman of 55, a devout Roman Catholic, complained to her husband that men came into the house at night and stole bed-linen. The police were informed, but on investigation nothing was found missing, nor did there appear to be any traces of the house having been broken into. A few weeks later she stated that she was being given a bad name by her neighbours for having sold milk to a "prostitute down the road". Some months after this she went to the police with a written statement in which a host of people appeared as having accused her of being "a harlot with a disease". Many months later she went to see a priest to whom she related that certain Protestants had wired-up her house and were seeking vengeance on her children: the girls were to be made into harlots, the sons into nancy-boys [*sic*]. Meanwhile she carried on her grocery business in an efficient manner and was negotiating to buy premises next door for expansion of her business. She planned all this herself and brought the whole matter to a successful conclusion, arranging and financing everything entirely on her own, because, as she said, her husband had "no head for business"—which happened to be true.

About a year later she sent for her doctor and complained to him that she had been struck deaf by obscene voices which came along mysterious wires. These voices threatened her with dire punishment unless she gave up her religion and agreed to become a loose woman. The voices always used profane and immoral words. Eventually she agreed to apply voluntarily for admission to a Mental Hospital. Here the voices followed her, but instead of these belonging to male persecutors they now belonged to female ones. She accused the hospital authorities of throwing her on beds recently vacated by syphilitic women, so that the accusing and threatening voices could be proved right.

After some three months she left the hospital and returned to her business. She remained intellectually alert. Both her delusions of moral depravity and the auditory hallucinations of persecution persisted unaltered for another year, when for the second time she voluntarily entered a Mental Hospital.

Although from such a tabulation of symptoms as is given above it would appear that paraphrenia is distinguishable from paranoia and dementia paranoides—which, on theoretical grounds, is the case—the psychiatrist will find it a difficult matter to diagnose any presenting paranoid reaction as paraphrenia, especially as the disease is more rare than paranoia, which itself is more rare than dementia paranoides.

Theoretically, then, and to some extent practically, there is a place for the clinical entity known as paraphrenia: a paranoid reaction coming on later in life, with fixed but florid delusions, accompanied by hallucinations, mostly of the auditory kind, and ending in personality dilapidation after a prolonged course.

3. DEMENTIA PARANOIDES.—

The paranoid reactions usually occur in an affective setting appropriate to the circumstances in which the patient finds himself or assumes himself to be. If his delusions refer to persistent disturbance of his peace of mind and body by unknown agents then he is likely to exhibit depressive symptoms. If he believes that at last he is on the track of his deadliest enemies his mood will change to happiness and even elation. In either case the affect is congruous to his condition, whether the latter be factual or imagined. If, however, the patient's affective response is inadequate, or at variance with presenting circumstances, we are probably dealing with dementia paranoides (that is, the paranoid form of schizophrenia according to some authorities).

In assessing the diagnostic claims of any particular case the affective aspect should receive first consideration.

Case.—A man of 35, unmarried, well-educated, an officer in the Indian Army, complained of interference with his health and liberty on the part of his mother, his lawyer, and the War Office. He accused his mother of having given him syphilis, his lawyer of attempting to cheat him out of his patrimony, and the War Office of persistent persecution. He travelled over a hundred miles to

present his case to Scotland Yard and wrote numerous letters to the Chief Constable of his town. In the midst of all this apparent, but to him real, tragedy he smiled inanely, laughed to himself, and freely spoke of his auditory hallucinations. During two years of psychiatric observation he persisted in his delusions, went about unkempt, smoked a good deal, and could not be persuaded to occupy himself with either reading or work of any kind. Throughout, too, his mood remained unpredictable and utterly detached from his surroundings.

The second point to consider is the fixity and systematization of the delusional beliefs. Here it is well to point out that even paranoid schizophrenics may stay comparatively fixed in any one false belief, and that it is the lack of system in the evolution of the delusions which forms the more important diagnostic element. The dementing paranoid does not trouble to cast his complaints against the world into any reasoned form or order: they remain fragmentary and isolated, and are seldom allowed to break into either his affective or his instinctual life.

Thirdly, the patient needs the additional help of hallucinations or hallucinoses to sustain his delusions. It would seem that he is unable to resolve his many conflicts and satisfy his complexes with the mechanism of intelligent projection only, and he therefore seeks, so to speak, corroborative evidence for his statements in imaginary voices and visions, conjured up under the influence of a strong vindictory motive.

Finally, there occurs a progressive, though slow, disintegration of the personality and "habit deterioration" (Adolf Meyer), a clinical sign which has contributed much towards the inclusion of this form of projective reaction within the class of the schizophrenics. The degree of deterioration seldom reaches that of the organic demented, and a satisfactory hospital adjustment is reached in most cases. Amongst the features characteristic of deterioration—or of regression, as some writers have called it—we should mention a lack of organization in the delusional structure, fantastic beliefs, a general slackening of interest in all things pertaining to outside activities and events, ending in the behaviour patterns characteristic of schizophrenic dementia, such as thought incoherence, mannerisms, and stereotypies.

The writer has included this clinical syndrome amongst the paranoid or projective reactions, and not amongst the schizophrenias, for two reasons only. First, because the mechanism of projection forms the most prominent clinical feature, and persists for the greater part of the life of the afflicted individual. Secondly, because the eventual deterioration, though showing similarities with deterioration as found in schizophrenia, should not, on this basis only, be identified with the better-established schizophrenic types. At the same time, it is freely admitted that the question is not by any means settled and that dogmatic pronouncements upon it must not yet be made.

4. OTHER TYPES OF PROJECTIVE REACTIONS.—

As has already been mentioned, paranoid features are found in many kinds of mental illness, and it must be assumed that constitutionally these patients are prone to retreat into a world of projections when faced with adversity, physical or psychological. The method has become, through years of practice, a facile and satisfying one, and is like a conditioned response, easily and automatically resorted to. Thus, we meet with it in senile mental states, in senile arteriosclerotic conditions, in deliria of organic origin, in schizophrenia, in depressions of all grades of severity, and in involutional melancholia. Clearly, we must agree with Lange's conception of this mental dynamism as a paranoid syndrome which may be seen in many settings. Incidentally, too, those workers who find the psycho-analytic explanation to fit only a minority of such cases are confusing paranoia with the paranoid syndrome as described by Lange. In the present writer's experience those patients who were suffering from the disease entity known as paranoia, and who could, without a shadow of doubt, be so diagnosed, have invariably revealed, without prompting, the presence of strong homosexual tendencies coupled with an equally strong aversion thereto and a profound feeling of guilt, though the latter was not in all cases consciously formulated.

Kraepelin suggested two types of paranoia. The mattoids are those in whom the delusional system finds expression in activities outside themselves. These comprise the revivalists of queer religions, the fanatical reformers, the morality mongers,

the cranks in all departments of life, the faddists of all sorts. The egocentrics, or true paranoiacs, are those whose delusions concern their own personality and who are not interested in the social activities around them.

The condition known as *Folie à Deux*, or the "psychosis of association", as Gralnick (1942) prefers to call it, is so frequently of a paranoid kind that it may best be described here. It consists in two or more persons developing the same delusion, the development occurring in sequence or simultaneously, the former type covering the largest number of cases. The most usual mechanism at work is that the one person (the inducer) succeeds in getting his delusions accepted by another person (the induced), and that the latter identifies himself with the former whom he represents in fantasy as a symbolic figure of authority (Deutsch, 1938). According to Last and Coleman (1939), the inducer must be anxious to impose his delusional scheme upon another; he must also not have reached the stage of complete withdrawal from a hostile society; nor must his delusions be of too personal a nature, so that there is within the scheme also room for another; the induced must be living in close personal proximity with the inducer for many years and must be of the suggestible, hysterical type. It is said that the most frequent combination is sister-sister, then husband-wife or mother-child, and lastly brother-brother (Gralnick, 1942).

The colouring of the psychosis may be obsessional, as well as paranoidal.

The psychosis has been more elaborately divided into three types. The first is known as *folie imposée*, in which A infects B with his delusions, and in which B recovers on being separated from A. The second is the *folie simultanée*, in which A and B start from the same premisses at the same time. The third is the *folie communiquée*, in which both A and B admit the same delusion through 'infection' from A to B; no recovery occurs when they are separated, but rather an intensification of conviction. At the same time it should be added that the paranoid varieties have a bad prognosis, that separation has little curative effect, and that they must eventually be hospitalized.

Paranoid psychoses in women associated with adrenal virilism and successfully treated with adrenalectomy have been described by Allen and Broster, and by Green, Paterson, and Pitt in the *British Medical Journal* (May, 1945), and elsewhere.

Diagnosis.—The presence of a paranoid state is rarely missed by the psychiatrist, but since paranoid reactions are common in the psychoses, and since they are also met with in subjects who cannot be said to be suffering from any major mental illness, time must often elapse before the diagnostician may with certainty include the case within its assigned class. It will be found that, on the whole, the number of cases mistakenly held to be paranoiacs is larger than the number of true paranoiacs wrongly diagnosed.

A paranoid reaction frequently occurs in both acute and chronic maniacs, in whom the state of elation and boisterous spirits becomes displaced by a mood of irritability and fault-finding (Gierlich). A history of violent mood swings and a general lack of restraint and orderliness in speech and motor activity should rule out paranoia, where mood swings remain within normal limits and where logic and reservedness strike an unmistakable note.

Some individuals use the dynamism of projection all their lives without ever succumbing to the major psychoses. Their feelings of inadequacy and frustration, both real and imagined, find some sort of spurious relief in destructively criticizing their surroundings, their families, and their fellow-beings. At the same time they retain a healthy grasp on reality; their grudge-formations relate to their immediate environment and subside with the removal of the latter; whereas paranoid reactions proceed from the depths of the inner self.

In paranoia we find an amplification of certain personality tendencies whose exteriorization remains well under control. The paranoiac is in essence an egocentric, with strong convictions as to the rightness of his beliefs which he hides till later on in life, usually towards the end of his fourth decade, and for which he sets up an ingenious defence.

In non-paranoiacs, on the other hand, there is loose systematization and free expression of delusions, frequently with

indifference to the persecutory ideas or with inappropriate affective reactions to them, lack of reasoning, distortions of personality trends, and looseness of reality grasp.

The pre-morbid personality, as already described, should always be investigated, as it forms the most important single factor in the later colouring of the abnormal reactions. A history of true grievance, so often quoted by psychiatric writers, may be dismissed as a factor of any diagnostic or psychopathological value since it acts merely as a fortuitous precipitant to an already sensitized personality. To assume that the future paranoiac stands in need of a real grievance upon which to build up his delusional system is to underestimate his inventive capabilities, goaded as they are by over-powerful complexes.

The foregoing description of paranoia and its related syndromes should be sufficient help towards a correct diagnosis. As a rule the paranoiac does not claim psychiatric attention till well on in the forties, or much later, and the history of a long preceding period of aberrant reasoning can always be obtained. The longer the evolution of the system the more likely is it that a true paranoia is being dealt with; and if besides the long evolution there are also no signs of personality break-up the diagnosis is certain. Hallucinations do not colour the clinical picture of true paranoia, and affect remains adequate and pertinent.

Prognosis.—True paranoia is not so much a disease process as a personality defect. Half a lifetime of distorted thinking, of unhealthy habits of mind, cannot be given any sure promise of relief or cure. Where, besides, there is also personality fragmentation, or where the patient has become dependent on hallucinations, we must admit that, with the curative methods at our disposal at present, the outlook is bad. Cases are reported from time to time where recovery has been effected by analysis or some other means, but they are rare. Also, we must beware not to mistake a temporary remission for a cure. Remissions do occur, but we shall find that they are more likely to be the result of a temporary increase in repression, or even to a successful attempt at dissociation, and not to insight at all.

Treatment.—It follows from these remarks that the treatment of the projective reactions is meagre and that its results are equally poor. One has come across isolated cases treated and much improved by psycho-analysis, but it constitutes treatment by the select few for the select few. We have nevertheless a powerful weapon in psycho-analysis, given an experienced analyst and a pre-psychotic individual. If, that is, the paranoiac in the making could be diagnosed as a potential psychotic and could be persuaded to undergo an analysis, it would at least give us a basis for hoping that, should a paranoid state develop, it might remain abortive and the patient remain socially adjusted to a reasonable degree.

Short of an analysis the treatment resolves itself largely into a prolonged and patient attempt to overcome the fixed and false beliefs by suggestion and explanation. Caution, extreme caution, must be the watchword in our approach, as without it the necessary rapport can never be established. We must listen to the patient's account of the genesis of his delusions and complaints, without disagreeing openly and without agreeing openly. He is as sensitive about his delusions as a more normal person is about his religious and political beliefs, and antagonism, rather than sympathetic rapport, may all the more easily be fostered on that account. We must then proceed to explain to him how those constitutional tendencies inherent in his particular type of personality carry with them certain dangers. He should be taught to study and understand his fellow-beings, their personalities, peculiarities, reactions, and motives, and in so doing he can be led to a greater tolerance of the faults and failings of those whom he has included within the scheme of his suspicions and misinterpretations. He must be trained and encouraged to face his own shortcomings, his rigidity of mind, his unproductive and abstract speculations around himself, his dogmatism, his unwarrantable positivism.

The psychiatrist should at all times be on his guard against either deceiving or humouring the paranoiac, as on such foundations no useful understanding can be built up. Hypnosis, also, should be avoided, as the patient's post-hypnotic reactions are unpredictable and may be dangerous.

Hospitalization is best left as a last resort. The paranoiac already lives in a world of restricted liberty, hemmed in as he is by his own suspicions and fears, by his hatreds and grievances, and any further curtailment of his freedom will only fan his delusions. On the other hand, some paranoiacs welcome, for a time at least and until the hospital itself comes under suspicion, the comparative safety of a mental hospital. In all cases where the patient has become socially unadaptable, where hallucinations and delusions are interfering with the peace or the safety of others, and where personality break-up renders the patient unfitted for social life, the question of commitment arises, and a careful assessment of the psychiatric state should be made. Such an assessment is to be guided by considerations such as the possibility that the patient may be homicidal or suicidal, difficult to manage at home, and so on, and not by the mere existence of delusions and hallucinations, however 'insane' these may be.

The paranoiac as an in-patient frequently succeeds in coming to terms with hospital existence, provided that the treatment he receives is reasoned and commensurate with his intellectual equipment.

The dementing paranoid patient needs far more supervision, and on the whole should be treated in the same way as other dementing patients. At the same time he, too, should be handled with reason and understanding if the best behaviour is to be obtained from him: he is untrustworthy in his actions (and language), however, and can only be allowed a modicum of freedom.

CHAPTER X

THE PSYCHOSES—*continued*

III. THE SCHIZOPHRENIC PSYCHOSES

HUMAN happiness and human achievement, if they are to reach fullness in the widest possible sense, can only be attained on a basis of complete interdependence within the social structure, and on the tacit assumption that each unit within that structure has reached a measure of integration of the conative urges sufficient to make thought and action predictable within certain accepted limits. As soon as the individual breaks contact with society he undergoes, *ipso facto*, an estrangement, an alienation, whose degree will depend upon the gap which he has set between himself and society. If, having accomplished his estrangement, he now replaces the discarded normal social contacts with a mode of living where bans and vetoes on certain types of thinking and acting become pointless and unnecessary, he is free to answer the dictates of whatever trends and complexes his inner life offers, and to answer these in such a way, moreover, as would not pass muster in social life amongst the outer realities.

Whether these constitute the genetic factors in schizophrenia, or whether we have merely given an objective description of a process whose genesis still eludes us, cannot, so far, be stated with any degree of certainty. As regards the causation of schizophrenia, theories and hypotheses abound, and the bibliography is overwhelmingly rich in all its aspects. Yet so much still needs to be known that we can only be said to have reached the fringes, and the catalogue of questions and queries awaiting research is an extensive one.

It will therefore be appreciated that the account which follows must needs be a mere epitome of a subject to which a volume would not be too much to devote, whose very essence is still largely a matter of conjecture, and whose boundary lines are ill-defined.

History.—A hundred years ago schizophrenia was spoken of as simply dementia. A distinction was made between it and the manic-depressive psychoses, and as a mental disease in its own right. Where dementia constituted a mode of termination to a mental disease the condition went by the name of apathetic dementia, a concept which appears to have covered almost all forms of mental dysfunction approaching its last stages.

Esquirol insisted on care being taken not to mistake dementia for idiocy, and stated that dementia is a disorder of the ideas and affections, characterized by feebleness and by the abolition of all the sensitive, intellectual, and voluntary faculties. About this time too dementia was noted to be associated with General Paralysis. It is clear that dementia of any kind or form remained just dementia, whether senile, paralytic, terminal, or what we now refer to as schizophrenic. A distinction was made between primary and secondary dementia, acute and chronic. The primary forms occurred as a result of some terrible calamity, the secondary as a consequence of mania, melancholia, monomania, or general paralysis. No distinction was at that time being drawn between the two types of stuporose states, as we know them now, the depressive stupor being assumed either to end in recovery or in chronic and permanent mental enfeeblement. That is, the stupor of melancholia could pass into unequivocal dementia.

The position, then, was as follows: Dementia issued from an attack of maniacal excitement, or from an attack of depression, or from a delusional state; alternatively, it merely followed such types of mental illness as a consequent. It was stated (Clouston, 1896) that more than half the terminal dementias followed the insanity of adolescence, and by the latter was meant acute mania, more rarely melancholia; a young man would gradually alter in behaviour and appearance after an attack of mania, and his moral and reasoning attributes would almost entirely disappear. But after full development of the individual no pure and uncomplicated dementia was assumed to supervene, the dementia of senility, the puerperal, or lactative, being considered as species different from that

occurring typically in adolescence. In other words, differentiation had crept into the class dementia.

At the turn of the century dementia was undergoing a division into those forms which showed slight mental weakness, those with chronic delusional insanity, and those designated as terminal, either agitated or passive. The first might correspond to the modern simple type of schizophrenia, the second to dementia paranoides, the last to all other types of dementia. The agitated form bears a close affinity to our catatonic schizophrenic excitement, the passive being the equivalent of catatonic stupor. All forms, however, were still described as the sequelæ of mania or melancholia, and later on in life, as terminal insanities. Catatonia as a symptom had been described much earlier (1869) by Kahlbaum, and by Neisser (1887); hebephrenia by Hecker in 1871; whereas catatonia and dementia præcox had been coupled together in a paper by Masoin in 1902.

In 1905 Paton devoted a chapter to what he then called the Dementia Præcox Group, the name dementia præcox having been suggested by Schule in 1886 to describe the "acute dementia which afflicts those individuals who are wrecked on the cliffs of puberty." Paton adopted the Kraepelinian tripartite division into hebephrenic, catatonic, and paranoid forms, and gave the age-incidence as between 20 and 38.

It was, therefore, Kraepelin who placed Schule's Dementia Præcox on a clinical basis and succeeded in distinguishing the condition clearly from any other abnormal mental state at that time known to psychiatrists. In the second edition (1906) of his *Lectures on Clinical Psychiatry* he stressed certain symptoms of dementia præcox whereby he sought to bring out the differentiation between it and the affective psychoses. Thus, he stresses such peculiarities as a "high degree of weakness of judgment and flightiness, although pure memory has suffered little, if at all"; a mental and emotional infirmity which reminds us only outwardly of states of depression; an incurable infirmity with gradual development; a senseless playing with syllables and words; *flexibilitas cerea*, *echo-praxia*, automatic obedience; and many others. He then goes on to prove that the disease named by Kahlbaum Katatonia

or "insanity of rigidity" may, and should, be classed amongst the symptoms of dementia præcox: as should also the condition known as Katatonic Excitement because of the absence of any profound emotional excitement, and because of the presence of a wealth of symptoms indicative of dementia præcox, such as stilted behaviour, impulsive and senseless actions, grimacing, meaningless chatter, stereotypism, and so on. We cannot help digressing here in order to pay tribute to Kraepelin's remarkable insight, and to his astonishing ability in handling clinical material, and, above all, to his gift of discovering similarities amongst a welter of apparent diversities.

Thanks to Kraepelin's work dementia præcox was now accepted as consisting of three types: the hebephrenic, the catatonic, and the paranoid. In 1909 Lugaro, of the University of Modena, suggested the inclusion within the hebephrenic group of "certain forms of precocious feebleness of intelligence"; and within the other extreme of the series he favoured the inclusion of involutional types with paranoid colouring, of certain states of hypochondriacal delusion associated with suspicions of persecution, and of states of affective depression with symptoms of negativism and a tendency towards chronicity and dementia which resemble catatonia to a certain extent. Against such all-embracing processes of classification he himself sounds a note of warning, as "a definite decision can only be arrived at on pathogenic ætiological grounds," which he then proceeds to summarize in the light of hypotheses current about that time.

At the same time, in Florence, Tanzi spoke of dementia præcox as "consisting in a systematic discontinuity of thought and action, which is neither possible nor conceivable from the point of view of psychology, for it is the negation of all subjective determinism." He considered the term dementia præcox unfortunate and ambiguous, for reasons with which present psychiatrists agree. Like others before him he stresses heredity and cortical cellular degeneration as the two major factors in the genesis of this disease.

Even this scanty description of the origin of schizophrenic theory will help to point to the more important differential diagnostic features in the modern conception of the disease,

and to view it in perspective against the background of its own historical vicissitudes and of the many other syndromes with which psychiatry concerns itself. In this age of easy assumptions we do well to express our appreciation of the work done by those who went before us, of their clinical acumen, of their dogged and sustained efforts at retrieving the homogeneous from a baffling mass of seemingly heterogeneous observations.

Aetiology and Pathogenesis.—We have as yet no clear understanding of the genetics of schizophrenia, the whole subject being at present somewhat confused. Some workers (e.g., Kallmann) favour the theory that a recessive inheritance is at work, whereas the theory of dominance is favoured by Schulz's findings that over 60 per cent of all schizophrenic matings have an expectancy of schizophrenic offspring. At the same time he inclines to the opinion that simple dominance is probably not to be found. Furthermore, he postulates the interesting hypothesis that there may exist a genetic factor common to both schizophrenia and manic-depression—a hypothesis which we are inclined to accept.

Kallman's work on the genetics of schizophrenia is exhaustive and highly illuminating. He divides his material into four groups. Group H are the hebephrenics, group P the paranoids, group S the simple schizophrenics, group C the catatonics. Amongst ancestors he found a plentiful sprinkling of vagabonds and prostitutes (except amongst the P group), with a steady decline in the number of descendants of strongly tainted families. Also plentiful are recalcitrants, despots, religious maniacs, pietists, recluses, dreamers, and pedants. Being a recessive the disease entity remains latent in a large number of schizophrenic ancestry, the tendency, rather than the disease entity, being heritable. It is precisely the carriers of this tendency, and especially the sisters and daughters of schizophrenics, whose presence needs recognition before the onset of the disease if a eugenic reduction in the number of declared schizophrenics is at all to be hoped for.

He states that phthisis as a cause of death amongst schizophrenics, their children, and their parents, is so frequent that it must be considered a real factor in the heredity-cycle of

the disease. It affects the H and C groups far more than the S and P groups, as does also the number of suicides; moreover, the H and C groups (which Kallmann terms the nuclear groups) have double the number of schizophrenic children compared with the P and S (or peripheral groups). As regards phthisis he goes so far as to say that it and the schizophrenic tendency may have a common origin in a hereditary functional deficiency of the reticulo-endothelial system. Both marriage and fertility percentages are lower than for the rest of the population; not more than 50 per cent of schizophrenic material reproduces itself. From his work there stands out the most interesting observation that the nuclear group presents in all respects the more profound deviations from the normal, whereas the peripheral group approximates the normal. One cannot escape the conclusion that, with greater knowledge of the whole disease, the two groups may eventually have to be regarded as not being related to each other except on the grounds of certain common external manifestations. In the present work the paranoid form has already been, provisionally, split off from the main body of schizophrenia. Will the time come when the simple form will no longer be called by the generic name? Or shall we eventually look again upon all four types as different shades of the same disease, but of a disease which we shall have ceased to call schizophrenia?

Up to date all kinds of theories as to nomenclature and classification are to be met with. The two extremes are represented by Osborne (1940) who would prefer the name *Palæophrenia*, because of the regression to a primitive type of thinking which is invariably found amongst the subjects of this disease; and by Stanley Cobb (1941) who suggests the name *schizo-affective psychosis* on the grounds that typical cases are rare and that the mixed types are common, the two forming a continuous and connected series. Such generalizings make for vagueness rather than accuracy, although there is ample room and justification for the existence of both terms; comprehensiveness, however, is not what we stand in need of, but rather particularization and subdivision.

Adolescence and early adulthood furnish the largest numbers of cases of the clinical syndromes known as the catatonic,

hebephrenic, and simplex types. Much evidence of the presence of schizoid features in the personality make-up may be observed in all types. An early onset and the schizoid pre-morbid personality form, indeed, two striking features. We do not know why it is that some adolescents should find the process of maturation so difficult that they prefer to throw themselves wholesale into a world of fantasy. Certainly no brain pathology or testicular biopsy is sufficient to explain this fundamental peculiarity, though both the neurones and the sex glands may share in the general abnormality. Nor do we know why these two anatomical sites should specifically be picked out by the regressional process. If on the one hand we were to blame the pathology of cortex and sex glands for the schizophrenic disease we should be taking an unwarrantable inferential jump, whereas, if we were, on the other hand, to blame the personality's excessive introversion and its habit of retreating before life's difficulties, we might be accused of pushing the psychic hypothesis beyond the boundaries of probability. Yet, for the time being, and in the absence of more conclusive proof of the existence of an anatomical causative substratum, we incline to the view that a strongly asocial tendency, indulged in from early childhood onwards, might well have its anatomical repercussions.

From the beginning of this century until the present day the gonads have figured prominently in all work done upon the causation of schizophrenia. Kraepelin and Mott were among the first research workers in this field. Recently, however, Mirschbaum and Heilbrunn have investigated, by the method of biopsy, the brains of physically healthy schizophrenics, with an average duration of illness of over fourteen years, and have described degenerative changes in the ganglion cells and progressive and regressive reactions of the glia and blood-vessels, such as are commonly seen in cases of chronic intoxications and metabolic disorders. Hemphill, Reiss, and Taylor, using the method of testicular biopsy employed by Lane Roberts, Charny, and others in urology, found that in many cases of schizophrenia there had occurred a special form of atrophy involving chiefly the tubules and their contents. This atrophy was characterized by changes in the basement

membrane leading to its hyalinization, with arrest of spermatogenesis, progressive degeneration of epithelial elements, and eventual destruction of the tubule—the atrophy differing in essential features from atrophy due to other causes of testis degeneration. Significant atrophy was not found in the paranoid form. The internal secretion of the testis appeared to be well preserved in most cases. Hemphill holds that the atrophy is an integral part of the psychosis, and states that “there is considerable evidence that it may antedate the appearance of mental change”. The disorder of the testis, he considers, is not causative of schizophrenia, but is evidence of a complex central imbalance of which it is one sign; “neither is it related to mental trauma or masturbation”.

Such work as the above must prove to be an important step towards the discovery of the full history-cycle of schizophrenia. A missing link, probably more than one, certainly still exists between the findings in the cortical neurones and those in the testicular basement membrane; nor are we convinced by the author's evidence that the physical pathology may antedate the appearance of mental changes. Also, it will be interesting to know whether correlated changes occur in the schizophrenic ovary, and whether the occurrence of virilism in menopausal female schizophrenics is pertinent to the above findings.

A common denominator, therefore, still escapes us, and, for the want of a physical one thus far, we are obliged to fall back upon a psychic cause. The present writer does not hesitate to insist once again upon the far-reaching effects which the mind exerts, unconsciously, upon bodily processes and bodily structure, and believes that prolonged mental stress in early life, reactivated later on, may well result in the onset of dementia præcox, which disease appears, very strikingly, to be an essential dissociation cutting deeper and deeper into the ‘psychoneural’ system.

Thirty years ago Freud expressed the view that the distinguishing features of schizophrenia were due to the peculiar relationship which obtains in that disease between the ego and the libido which it has withdrawn from objects; this libido regresses to the ego and is converted into narcissism, with

its consequent emotional inaccessibility. Later analysts have suggested (Symons) that this conversion has its basis in narcissistic trauma whose sources are to be found in oral privations experienced in infancy. Such speculations, logical enough within the totality of the psycho-analytic structure, are unfortunately difficult to prove. At the same time they should be pursued. It may seem a far cry from the basement membrane of the testicle to the meta-psychological theorizings of the psycho-analysts, but humanity has no right to ignore either, confronted as it is with a problem of such gigantic proportions as schizophrenia.

Much work, too, has been carried out by biochemists in search of changes in that most intimate intermediary between soma and psyche—the body chemistry. Gjessing (1938) discovered abnormal variations in the nitrogen excretion-retention rhythm in catatonics coincident with the phasic variations found in this condition. By the exhibition of thyroid hormone during the retention phase the patient recovered from his catatonia and could be kept well thereafter by a maintenance dose.

Biochemical research in the domain of brain metabolism has not, so far, received application in the field of psychiatry, though considerable advances have been made with regard to chemical mechanisms concerned in nerve activity. Neither has psychiatry, up to the present, benefited much by the great strides made in the study of vitamin deficiencies; although some mental syndromes are produced by a lack of vitamins, schizophrenia does not figure amongst them.

The suggestion that the hypothalamus, as central autonomic regulator, is at fault has not yet found any support from the pathologists: significant histological changes in that region have not been reported.

The somatic abnormalities in schizophrenia are so many and varied, and the findings so numerous, and often contradictory, that we must await the discovery of a common factor which will make clear and mutually explanatory all the scattered and disconnected results of clinicians, pathologists, chemists, and physicists at present engaged in the work. Meanwhile, let us adhere to the principle that the underlying motive of the

schizophrenic's thinking, feeling, and acting is the same as that which dictates the strange behaviour of his body chemistry—that is, a flight from reality into a regressive world of fantasy, in which mechanism the somatic and the psychic take their own particular and appointed parts.

Thus, on the somatic or physiological side we know of such peculiarities as a diminution of response to thyroid and adrenaline, a hypo-active autonomic system, faulty detoxication, disturbed acid-base equilibrium, abnormal variations in protein and lipoids in the blood-serum, frequency of disorders in the chemistry of the gastric juices, hypothermia, vasomotor disturbances, and so forth. Whilst on the psychological and personality side we have the many colourings of pre-psychotic types, variously classified by various workers, but all of them of the 'withdrawn' kind, asocial and seclusive, distorters of reality, unemotional towards the outside world, poor in creative fantasy, non-conformers to our generally accepted standards and values, poor in abstract thought, harking back to early affective fixations, and many other characteristics.

It will be clear that the search for an all-explanatory formula presents a problem of great complexity and of many difficulties, amongst which the most formidable is, perhaps, the inherent difference existing between the lower or physiochemical and the higher or psychological integrations.

Symptomatology.—The clinical configurations of schizophrenia are still, by the majority of psychiatrists, classified into four main types: the hebephrenic, the catatonic, the simple, and the paranoid. In this work we have excluded the last type from the schizophrenias, for the time being at any rate, on the grounds that, as a result of recent research, the dissimilarities between it and the other types outweigh the similarities, both physically and psychiatrically. We would nevertheless point out that the matter is not simply one of inclusion or exclusion and that a good deal may be said on either side. Also, every patient must be considered as an individual, where diagnosis and prognosis are concerned, and not as belonging rigidly to a class or type. Some authors, and especially Langfeldt of Copenhagen, have found amongst the schizophrenics of paranoid colouring those with delusions

of being poisoned ; others with ideas of influence, with marked projective reactions, depersonalization, and derealization, but without persecutory delusions ; finally, those types whom they call paranoid-catatonics, with delusions of persecution but also with all the other manifestations of catatonia, such as stereotypy, rigidity, catalepsy, hallucinations, stupor, aversion to feeding, mimicry, and others.

Certain characteristics are common to all early schizophrenics. Their autism and remoteness from reality, we may definitely assert, are their fundamental qualities, in the absence of which judgment upon the presence of schizophrenia should be reserved. The next outstanding symptom is the depressed state of the patient ; he seems to possess a vague but real knowledge of his inner state, as if he were experiencing the disease as a subjective change, and therefore as a threat to his self, to his ego. Other symptoms common to all are a lack of decision in all matters, confusions, impulsive acts, ideas of influence, and autochthonous ideas.

Although the clinical types are here described under three main headings for the purpose of theoretical and practical exposition, there are many variants and admixtures, as well as psychotic states of a schizophreniform kind. In fact, the present-day tendency is to include, perhaps, too much rather than too little under this heading, and it is well, if we are to avoid therapeutic and prognostic pessimism, that we should establish a scale of disease values along which all sufferers may find a place, rather than force every odd and hallucinated person into the three-dimensional diagnostic cage of catatonic, hebephrenic, and simple schizophrenia.

I. SIMPLE TYPE.—On first contact the simple schizophrenic might well be mistaken for a mental defective. He is colourless, unemotional, utterly unproductive, an amorphous mass of humanity. Indeed, the description consists mainly of negatives. Both onset and course are insidious, and it is only on looking back on the very earliest stages that we gain the information that the patient began by being moody and depressed, this feeling giving way gradually to complete indifference and even callousness regarding his state. He sinks into a state of mental and physical inertia which

remains the same from week to week and which is not marked by rhythm or periodicity. Response to outside stimuli drops to its lowest level, and where it does appear it lacks affective warmth. When seen by the psychiatrist he will have reached a stage which, on retrospective investigation, proves to be the climax or end-result of years of solitariness, moodiness, conative poverty, and lack of enthusiasm generally. At the same time it must be emphasized that up to a certain age, say 14 or 15, the inherent morbidity of the personality may have remained hidden to the average observer and the youth may have shown intellectual promise at school.

The onset, then, as the psychiatrist sees it, is uneventful and is not ushered in by anything sudden or catastrophic. The youth will not stick to his job, will not get up in the morning, remains aloof from his family, shows neither shame nor regret, and cannot be influenced by either advice or reprimand. Sometimes these patients drift into vagabondage, delinquency, or prostitution; sometimes they make a passive adjustment to a simplified life under care and protection, reserving their feeble biologic drives for the purpose of living an inner life of fantasy.

If he is deluded or hallucinated the simple schizophrenic certainly does not say so, nor does he show it in his behaviour. He appears quite satisfied with whatever circumstances of living are offered to him, desiring no change, making no complaints, taking life as it comes, wholly at peace with his progressive disintegration.

It is precisely this complete failure of affective response which constitutes the prominent symptom of simple schizophrenia and in which it differs from the other types. The patient imperceptibly slides beneath the surface of life and stays safely submerged, unaffected by the storms and strifes of existence, an odd solitaire.

Case.—A young man of 20 had been invalided out of the Services because neither men nor officers "could do anything with him". He accepted disciplinary measures with perfect equanimity and then resumed his life of idleness and apathy. When first visited by the psychiatrist he had to be fetched from his bedroom about noon, and he came down in his shirt sleeves, unwashed and unkempt, his hands in his pockets, a cigarette dangling from his lips. He

dropped into an armchair and turned the wireless on, only to turn it off again a few seconds later. He ignored everyone in the room. His mother asked him how he felt. At this he shrugged his shoulders and said: "All right—except for this hand (his right hand)". After a pause he asked if anyone had seen Jesus Christ, because "He was supposed to have visited Europe last week". He giggled and began to blow smoke-rings. To all questions put to him by the psychiatrist he answered in monosyllables, with an occasional grimace and a laugh thrown in. A few days later he put his right hand over a spirit lamp and burnt it "in order", as he said, "to purify my soul". The day after his admission he casually walked out and went home. After a full course of electric shock treatment his condition was unaltered. Frontal leucotomy, a year later, was followed by a short period of remission, after which he again sank back into apathy and was committed under certificate. A year after his admission no change was reported and he was said to be conforming to the life of the Mental Hospital with complete indifference.

2. **HEBEPHRENIC TYPE.**—Whereas in the simple type lack of affective rapport is the obvious and outstanding symptom, with the hebephrenic patient thought disorder presents the leading characteristic, the deterioration affecting especially conceptual and associative thinking. Disorganization would probably be a better term than deterioration. Nor is it so much a regression towards primitive thinking—though this also occurs—as a distortion of meanings and a dovetail of one theme with another on some loose and superficial associative linkage. For instance, a harmless and kindly male hebephrenic of some thirty years' standing remarked that "it would be presumptuous to have intercourse with one's sister or take a refined look into a chocolate box". Here we have distortion of meanings, telegrammatic expression, interference of one theme with another, and a final result which, on appearance, is a mere jumble. Yet the whole sentence is understandable given the circumstances of that particular moment. Thus, the home Sister, dressed in a new type of uniform ("looking refined") came into the common room with a shining tin of sweets and inadvertently had failed to offer the patient his share. There is no poverty of thought material here, such as we find in organic dementia, but rather a richness, but with an 'ataxic' way of expressing it. Meanings

are telescoped one into another, and in order to find the intervening links we need to possess the clues. But this would entail an enormous amount of work and a searching for references in the patient's past history. An example of this kind is the following saying of a hebephrenic woman aged 38: "unless you remove the woman from beneath the ambulance couch the King's servants will never find their gold leaf". A full analysis of this sentence would take up too much space. All we know of this woman is that she was a homosexual, that she had had ambitions of being presented at Court, that her father had held an important position, and that her maternal grandfather had been a goldsmith of some standing. Again, a wealth of ideas telescoped into one another.

Fantasy weaving, or the fantastic expression of thoughts, is another characteristic. Usually, too, the hebephrenic is hallucinated and fears what he sees and hears. He also exhibits many mannerisms and uses stereotyped methods of walking, sitting, and lying in bed. He is almost, but not entirely, inaccessible, and can be made to understand what is said to him if his attention can be diverted from his inner pre-occupations. Dilapidation of the personality proceeds apace, however, and may reach a profound degree.

Silly laughter and inane smiling, also seen in catatonics, can be observed every day and sometimes all day. Frequently it appears to be more of the nature of a stereotyped grimace, empty of all significance, and for which the patient gives no adequate explanation, most often none at all.

Delusions are frequently expressed, but they are loosely knit, unsystematized, and more like fantastic fabrications than real beliefs, varying day by day, and if not variable, they are certainly never backed up either by enthusiasm or by accessory proofs. They are in any case bizarre or impossible and, like all the other activities of the hebephrenic, they become mere stereotyped sayings.

Impulsive actions, apparently senseless and without motive, form another prominent symptom, as do also ideas of influence and feelings of passivity. He is usually of the sensitive type, easily hurt and quick to misinterpret remarks as having been made against him. He suffers from marked emotional storms,

weeping and laughing alternately, which behaviour leads one to surmise that at times he realizes the hopelessness of his state, and at others attempts to laugh himself out of it.

Case.—A young unmarried woman, now in the tenth year of her hebephrenic illness, presents most of the features just described. Her utterances denote a surfeit of complex-determined ideas, wishes, and fears, mixed up in unintelligible profusion. The Shah of Persia is referred to as her father; the physician in attendance receives the fictitious name of Mr. Blank; Chu Chin China is the place of her birth; chocolate and cigarettes form a recurring topic amongst her wants; gold and diamonds are continuously being mentioned. She is afraid of the dark and of being left alone in case unknown men spring at her. She identifies herself frequently with a child figure of her early youth whom she calls 'Mimi'. She is inordinately fond of music and dancing, at both of which she is proficient (having regard to her mental state). She is willing to co-operate with the staff in the ward, and shows stilted enthusiasm for any small change in her surroundings. Depressive phases, lasting no more than an hour or so, alternate with phases of silly laughter and with very short periods of irritability. She sleeps and eats well, and is fairly clean about her own person. She is mildly hallucinated for sight and sound. Her habits of dressing and eating are stereotyped: she refuses to wear stockings, will not put on anything that is new, prefers strings to buttons, and a bootlace to a ribbon. She divides her food into small portions on her plate and chooses to sit sideways at table. When smoking she walks round the room and blows the smoke into corners and under chairs. She is kind and tractable.

3. CATATONIC TYPE.—The catatonic schizophrenic presents, perhaps, the least equivocal of all clinical configurations in this domain. The onset has many of the appearances of the other types, until the development, usually with some suddenness, of one of two kinds of episodes typical of the disease: either the patient drops into a stupor or explodes with a fury of activity or excitement, both motor and ideational. This alternation between stupor and excitement constitutes the principal pathological feature of catatonia, and has, in consequence, received much attention from physiologists and psychiatrists.

That the catatonic has adopted, after years of maladjustment, a mechanism of adjustment through lower centres of integration is clear enough. He uses either the random

screechings and plungings of the cornered animal or the immobility of the hibernating animal. It has been suggested that the subcortex undergoes a diffuse intoxication by a metabolic product which is normally excreted in the urine. Certainly, in animals, bulboapnine, adrenaline, and choline imitate catatonia. In human beings we must posit at least three factors : failure to deal efficiently (perhaps under psychological pressure) with the toxic substance, a special susceptibility to the toxin, and a latent tendency to psychotic reactions.

In his stuporose state the catatonic remains motionless and mute ; he refuses all food and holds a close check on all his excretions until the sphincters give way and incontinence sets in. He keeps his mouth tightly closed, with his lips pushed out ; saliva fills his cheeks until it dribbles away down his chin. He stares into space before him and appears to be devoid of even a glimmer of thought, nor does he respond to physical or even painful stimuli. He resists all efforts at helping him feed, dress, and undress, showing here too an intense negativism. *Flexibilitas cerea* is present, as are also stereotyped gestures and grimaces, when he moves at all. Yet, in spite of his cataleptic state he is fully aware of his surroundings and is able to give an account of all that went on during his stupor. He may also be willing to explain away his state by saying that he heard voices of which he was afraid, or that he had fears of some other kind which made him remain immobile. Frequently, however, no such explanation is forthcoming. The same applies to the state of catatonic excitement.

During catatonic excitement the patient throws himself at all and sundry, is extremely active in an unproductive and apparently objectless way, and may commit suicide or homicide. His impulsiveness is extreme, his actions sudden, unpremeditated, and without any apparent emotional content. When he is not violently occupied he spends his time striking attitudes, walking or running up and down the ward in a stilted stereotyped manner, making faces, expressing silly and impossible delusions, perseverating in speech and actions, or giving way to a press of speech in which it would be hard to find any meaning (verbigeration).

Case.—An unmarried girl of 22, when seen during a quiet period, appears to be in touch with her surroundings; she is amiable, polite, but reserved and shy. She answers questions in an offhand but sensible manner. At times she laughs to herself and seems in a happy mood, over nothing in particular as far as observation can tell. She remains in her chair all day and will not occupy herself with anything. She is neat, clean, and tidy. Apart from her obvious abstractedness and her occasional pre-occupation with inner voices her total appearance would strike the observer as being a case of schizophrenia simplex. Then, like a bolt from the blue, without warning, she leaps up and screams at the top of her voice, hurling obscene words at imaginary persons; spits at everybody, and hits out; unless stopped she flings chairs down, pulls curtains down, breaks windows, and begins to fight with other patients in a wild, vicious manner. During this excitement her eyes flash wildly; she seems oblivious of her surroundings; she is inaccessible to argument or exhortation, and physical force has to be used to save herself and others from injury. After a variable period of minutes or hours she returns to her quiet self. When her recent behaviour is pointed out to her she apologizes but shows no signs of realization; at other times she merely smiles to herself and does not appear even to understand what one is referring to. On other occasions the period of excitement is followed by hours of statuesque immobility: she stands in a corner of the room with arms folded, feet close together, head slightly bent and turned to one side in a listening attitude, eyes tightly closed, and her lips pursed. Her sphincters are likewise tightly closed until the urine begins to dribble through; tube feeds have to be resorted to, enemas administered, and the urine catheterized. The full cycle then begins again and she becomes once more quiet, polite, and gentle.

Here, then, we have a florid psychosis, abounding in symptoms, a type of behaviour disturbance which at first sight impresses one with its air of classical dementia, somewhat reminiscent in its varied manifestations of acute mania, hysteria, narcolepsy, encephalitis, Parkinsonism, and even night terrors, yet one which leaves the patient, in the earlier stages, capable of sound speech and cerebration, and, later on, leads her on to utter deterioration. Such a constellation of symptoms cannot be explained by the toxin hypothesis mentioned above except by forced interpretation. The catatonic uses his diencephalic mechanism to express his conflict with the realities of life; his emotions of pleasure or unpleasure, his fears, his rages, his moods, all bear the

primitive stamp of the thalamus ; his rigidity and the maintenance of unwonted postures belong to the pallidal, putamen, and striatal systems. But these are merely anatomical and physiological observations, which do not explain the origin of the motive power behind the activity. We must surely look to the higher centres for any disturbed function. How else shall we explain the patient's behaviour between the crises, such as the strange perplexity which comes over him at times, and his restlessness and sleeplessness, his hallucinations, his delusions, and his ultimate dilapidation ? These belong to a higher order, to the psychic realm, and no over-strained hypothesis about the existence of a selective toxin affecting the diencephalon will fill the gap.

Gjessing's work on nitrogen imbalance is suggestive, but more data are needed. Meyer looks upon catatonia as a psychobiological reaction. Others see the stupor reaction as a dramatization of death, a quasi-suicide in the face of life's difficulties and the mind's inner problems ; sometimes the patient who has emerged from his stupor may volunteer the statement that fear drove him to it. In the analytic sense we might call the whole process a malignant conversion : normal responses to the inner and outer obstacles in the path of maturation and integration are replaced by reactions on a lower level of both psychic and physiological life, a dissociation, eventually irreversible, having been established between the cortex and the subcortex as a way out of an impossible impasse, as well as a dissociation between higher and lower levels of mental life. In the rhythmic phases of catatonia we may, therefore, discern the workings of the sadistic component directed towards the outside world during the excited phase, towards the self during the death-scene phase.

In default of a specifically physiological (or physical) cause the psychological one must hold the field. Since we have called the process an irreversible one, that is, irreversible when seen at the stage of frequently recurring catatonic phases, psychological treatment will be of no avail and physical treatment must be instituted.

Diagnosis.—From the above somewhat rigid and categorical descriptions of schizophrenic illness the impression might

be gathered that the disease could present no serious diagnostic difficulties. Such difficulties, however, are plentiful, because schizophrenia manifests itself frequently as a schizo-affective episode, or as a schizophreniform state, or with the marks of a major hysterical syndrome, of an obsessional state, and so forth. Often we shall have to await further developments in the course of the illness before deciding upon a diagnosis, and a reservation of judgment may indicate greater wisdom and the possession of greater knowledge.

We do well to inquire into the pre-morbid personality, when we shall find any one of the many types described as schizoid. In this way we will gain such information as that the patient has always been quiet, reserved, stiff, unsociable, eccentric; or shy, excitable, touchy, timid, humourless; or docile, honest, phlegmatic, good-natured, dull. But, always, we shall be told that he was the non-sociable type, with very few friends, if any at all, satisfied with being on his own, and considered awkward in company by those who know him well. Other descriptions of pre-morbid personality include the restless, shiftless, lazy types, drifters into vagabondage and crime, unreliable and wilful; or again, the pedants who lack creativeness or initiative of any kind, good-natured, obedient, stereotyped, conscientious.

More obvious peculiarities are the physical ones, amongst which we may mention cyanotic extremities, hypothermia, disturbances of pupil reflexes, sleeplessness, anorexia, low blood-pressure, cardiac dysfunction, and irregularities of respiration and gastro-intestinal functions. The physical habitus should also help to point the way to a diagnosis; the cyclothymic temperament usually corresponds to the pyknosomatic type of physique, the schizophrenic more commonly to the leptosomatic, athleticosomatic, or dysplastic habitus (Kretschmer).

Many schizophrenics are admitted into hospital with all the usual signs of a *manic-depressive illness*, but are later proved to be schizophrenics. On the other hand, many a diagnosis of schizophrenia may have to be revised (Kleist) where no deterioration has set in after 6 to 10 years. Certain points of distinction between manic-depression and schizophrenia

need stressing. Thus, the manic-depressive gives reasons for his various emotions ; he shows no disharmony between affect and behaviour, since his personality acts as an integrated whole ; a depressive state is rather a static affair ; the real manic needs an audience, and his press of talk is engendered by his surroundings ; nor is he impulsively sudden in his actions. The schizophrenic, on the other hand, is more dynamic ; his reasons derive from a life of fantasy only known to himself ; his moods are inconsistent ; an audience does not interest him, he merely explodes there and then, irrespective of who may be there ; he is not retarded ; he shows marked discrepancy between emotion and behaviour ; his delusions are not only unlikely or impossible, they are outlandish and grotesque.

Sometimes the seizures of the schizophrenic suggest the presence of *epilepsy*, and the epileptic may, in fact, also be a schizophrenic. A long history of fits culminating in mental changes favours the diagnosis of epilepsy ; a preponderance of mental symptoms, with an occasional fit, favours schizophrenia. The typical epileptic exhibits certain personality reactions and traits which are distinctive ; his personality deterioration, if it occurs at all, never amounts to the fragmentation seen in schizophrenia.

Alcoholism is frequently combined with schizophrenia. The true alcoholic makes light of the role of his alcoholism, the schizophrenic exaggerates it. The two main alcoholic psychoses, the Korsakow syndrome and delirium tremens, are too distinctive to be mistaken for schizophrenia.

The *neurasthenic* is not an autistic day-dreamer, neither is he deluded or hallucinated. He shows no real personality change. Moreover, he externalizes his complaints, whereas the psychotic shuts himself up with them.

Disease processes in the central nervous system, such as general paresis, disseminated sclerosis, and cerebral tumour, must be excluded on neurological findings.

The *hysteric* dramatizes before an audience, or before some particular individual ; he does not sustain his attack ; he is understandable regarding his symptoms and cannot for long hide the motive behind them. The description already

given of hysteria should help to prevent a wrong diagnosis being made, but attention must again be drawn to the astounding mimetic capacity of the hysteric.

Prognosis.—Whatever name has been given through the ages to the syndromes now collectively referred to as schizophrenia, it has always carried with it an implication of hopelessness. That pessimism is, on the whole, not misplaced has been amply borne out by experience. Yet there are cases where our prognostications should be more considered, and some where we might rightly point to a favourable outlook; just as there are cases with an acute onset, much cloudiness and incoherence, and an external precipitating factor, where we should, for the time being, withhold the more malignant diagnosis.

Of bad omen is the asthenic habitus, especially where the personality is of the schizoid or schizothyme variety, as are also pronounced and unvarying ideas of influence and depersonalization. Typical catatonics can seldom be given any hope of recovery.

A schizophrenic illness in a person with pyknic habitus—a rare combination—may be given a good prognosis, and, if the pre-morbid personality was of the cyclothyme variety, the outlook is the more hopeful. The same applies where an outside factor might have precipitated the illness. Of these the most important are a bad home and alcoholism, but especially the former; sometimes a head injury or a febrile illness unmasks a schizophrenic illness, and for such cases, too, the future is less bad.

An acute onset carries a better prognosis than a slow and insidious development. It may be said that, generally, early age of onset is prognostically less good than an onset, say, after thirty. Whether this is to be accounted for by age-factor only is not at all certain, because the type factor also enters here; the hebephrenics show the earliest age-incidence, the catatonics come next, and the slowly dementing paranoids usually come under observation after the age of thirty.

Those types of schizophrenia which go by the name of schizo-affective psychoses and those known as atypical or

schizophreniform psychoses may always be given a better prognosis than the pure schizophrenias and those which run true to type. In the atypical forms we also find that affect in relation to the surroundings and to outside events is better preserved, and that they, moreover, possess an adverse heredity. From this it follows that, contrary to expectation, a markedly adverse heredity in an atypical schizophrenia promises a better outlook.

Other factors such as sex, intelligence, and social stratum must not be relied upon for prognosis, although it is true that some catastrophic schizophrenias amongst highly intelligent autistic persons are usually of grave omen. It must also be added that differences of opinion exist with regard to some of the prognostic guides given above, and that no clear-cut formula of unvarying value may as yet be expected.

Treatment.—The causation of schizophrenia is probably a multiple one, since its manifestations are so variable, and there appears to be no common aetiology, no common prognostic rule, and no common pathology. We need, therefore, not be surprised that there can be no common method of treatment—if indeed it can be said that treatment exists at all. The only common factor underlying all types of schizophrenia is an ultimate degeneration, and even this is a variable quantity. Although the term schizophrenia has proved to be an excellent shorthand cover for a constellation of syndromes, we believe that the time has come to use the name more sparingly as a comprehensive label and concentrate our research work on the individual syndromes, taking care to isolate the latter on uniformly accepted diagnostic principles. A diagnosis of schizophrenia has become a too facile way of dealing with the cases under review, and the work of Langfeld on atypical cases and on schizophreniform states is a step in the right direction.

The chief forms of treatment at present in use depend for their efficacy on the induction of what is thought to be cerebral anoxia, the means used to this purpose being either chemical or electrical, the visible immediate outcome convulsions. There is no doubt that in some cases benefit ensues from such methods, but lack of uniformity in diagnosis

probably accounts for the great divergence of opinion in the assessment of improvements received and of general results achieved. Gottlieb and Huston, for instance, report no increase in the remission rate of 66 schizophrenics treated by the method of insulin coma therapy. Davidoff (1941) reports a recovery rate of 36 per cent in a group of schizophrenics treated with alternate injections of sodium amytal and benzedrine over periods up to two months. Renzikoff (1941) applied the same technique and reported uniformly disappointing results with nitrous oxide inhalations, and Green and Adrian (1940), with modified technique, were also disappointed. Kalinowsky and Putnam (1943) treated schizophrenics and other major psychoses with dilantin up to the point of tolerance, and stated that improvement occurred in over half the patients during treatment but that they tended to relapse when the drug was withdrawn.

Although reports on *insulin coma therapy* are conflicting, the method has been used for a long enough period (10 years or more) to allow for a too ready optimism to have simmered down, and to enable us to state, though guardedly, that insulin does alter the outward manifestations of schizophrenia and that it may, in some cases, abolish the symptoms altogether. When implemented with rehabilitational, occupational, psychological, and other adjuvants of a more conservative kind it gives encouraging results in the hands of a trained physician and staff; acute paranoids give the best results, then the catatonics, but the hebephrenics and simple schizophrenics do not do so well. The more chronic types have a less good prognosis, while some cases, in whom diagnosis may be at fault, do not respond at all. The induction of fits and coma by means of insulin has become a matter of specialized technique and cannot be discussed here. Suffice it to say that an initial dose of 10 to 15 units of insulin is administered and that the aim is to procure coma, which should, in the average case, occur about the third hour after administration. The dosage, however, is a matter to be decided on in each individual case, and its daily increase over the initial amount should always be gradual. An optimum maximum number of comas needed is in the neighbourhood of sixty, and the

method of termination of the individual coma is by the administration of glucose through a nasal feeding tube. The patient should wake up within half an hour of the glucose feed, but should this not occur the intravenous injection of glucose becomes imperative, as prolonged coma is by far the most serious complication that may attend this form of treatment. Protracted coma has also been treated by the exhibition of vitamin B, riboflavin, and nicotinic acid.

As in the case of insulin treatment the evaluation of results from the induction of *electric shock* presents difficulties, mainly with regard to obtaining uniformity in diagnosis, though also with regard to the individual observer's criterion of remission and recovery. We may say that, as a result of electric shock treatment, schizophrenics of not more than eighteen months' standing show a much higher remission rate than do those who have not received such treatment. Further, insulin coma is the method which can claim the larger number of remissions among all types of schizophrenia, but electric shock, because of its safety, quickness, and simplicity, should be tried first. The two methods may be said to be complementary to each other: electric treatment helps to relieve the anxiety and apprehension component of the illness, the insulin coma helps to clear up any underlying thought disorder. Finally, one will meet with cases of less than one year's duration who benefit not at all from either method. Nevertheless, opinion is sufficiently unanimous on the question to impose upon all psychiatrists the duty of advising the above treatment in early cases and to have it applied by trained physicians and trained staffs in hospitals adequately equipped for that purpose.

Frontal leucotomy, by partially inactivating the frontal association areas, has met with some success in schizophrenia and also in many other psychoses. The result appears to be a diminution of anxiety feelings and a reduction in introspective activities and, consequently, in feelings of inadequacy. As Freeman puts it, "the operation bleaches the affect attached to the ego". The chronic anxiety states and the agitated depressions were, among his material of 200 cases, the most successful. Other workers (Hutton,

Fleming, Dax, and others) give 116 improved out of 154 schizophrenics.

Re-education and rehabilitation after operative procedure is, according to Fleming, almost the most important part of the treatment. This need for individual attention also arises after treatment with insulin and electric shock, and many psychiatrists (Corwin and Thompson, Bierer and Haldane, and others) have gone far towards the achievement of this object. Myerson especially has instituted a detailed plan for keeping even the chronic schizophrenic in touch with reality as much as possible, the plan including such items as personal toilette, games, baths, showers, and a variegated diet of neatly served up dishes.

The writer has found that in cases of a schizophreniform type, and after the acute phase has passed, a frank discussion of all factors does good. The patient is encouraged to keep in contact with the home and is treated socially by all concerned as if his illness had been merely an unfortunate episode, like a physical illness. His interests are stimulated, so are insight and understanding, and genuine interest is shown in his future activities and occupations.

It goes without saying that *general nursing* should in all cases enter into the treatment of schizophrenia. It includes care of the functions of elimination, suitable diet, tonics where necessary, and the removal of any suspected toxic focus.

CHAPTER XI

THE PSYCHOSES—*continued*

IV. PSYCHOSES ASSOCIATED WITH MYOCLONIC STATES

UNDER this heading we shall group the syndromes commonly known as (A) Epilepsy, (B) Huntington's Chorea, and (C) the Post-encephalitic Myoclonias. Myoclonus is a symptom, and it may be produced by disturbances at various levels of the central nervous system. In the epilepsies the cortex is at fault; in the other types the trouble lies in the extrapyramidal system, the red nucleus, the globus pallidus. The three myoclonic states mentioned are here grouped together on the basis of their exhibiting, most usually, shock-like muscular contractions at some stage of their evolution, and of their being associated with aberrant mental functions. No further similarity is implied, either in the somatic or in the psychic sphere; convenience of description has largely guided us in adopting a method to which, we are well aware, objections can be raised.

The word 'epilepsy' must be thought of as a generic name for a group or configuration of symptoms, from which even the myoclonic element, at least in its gross and visible manifestations, may be absent. Further, the domain of epilepsy belongs equally to the neurologist, the psychiatrist, the general physician, the neurosurgeon, the radiologist, and the electroencephalographer, or at least its investigation is shared by all of them. An exhaustive account from all these angles must not, therefore, be expected in what follows, since in this work the accent is placed on the psychic quantity. Further still, if convulsive fits may be, and are, absent from certain grades of epilepsy, some alteration in consciousness is present in all, except the less extensive forms of Jacksonian fits.

A. EPILEPSY

History.—The more dramatic outward manifestations of a convulsive seizure have impressed human beings from time immemorial, and theories as to the nature of falling sickness have always been numerous—even as they are to the present day. More light was shown on the condition when it began to be realized that the fits did not account for the whole meaning of epilepsy, and that clinical changes were apparent also in between the fits and, later on still, that psychic peculiarities existed even when no fits occurred at all. More than a century ago psychiatrists were describing a state of diminution in consciousness before, during, and after the fits, as they were also aware of the existence of convulsion-substitutes and of personality characteristics peculiar to the epileptic.

The disease was looked upon both as a cause and a complication of insanity; or as maniacal attacks alternating with convulsions and ending in dementia. The epileptic himself, as met with in asylums, was described as domineering, suspicious, discontented, melancholic, and sometimes suicidal, complaining of hallucinations before a fit, and showing incoherence, stupor, or deep sleep, and sometimes blind fury or melancholia, afterwards.

Then followed a period when various stages in the clinical life of the epileptic were being described according to a time sequence, which had its pivot point in the fit itself, such as pre-paroxysmal, prodromal, paroxysmal, and so on, although it was recognized that the most important element of the paroxysm consisted of a loss of consciousness and that the occurrence of muscular spasms might, or might not, form part of it. *Auræ* entered the description, as did also the main division into 'grand' and 'petit mal', followed in some cases by mania, violence, fury, notions of persecution, incoherence, automatisms, mannerisms, and the like. A status epilepticus was also observed, as well as an Epileptic Catatonia, Hysteroid Attacks, Epileptic Hypochondriasis, epileptic emotional instability, intellectual deterioration, and dementia.

The theory of the existence of epileptic convulsion-equivalents must be ascribed to Hoffmann (1862), who wrote

that it was possible to recognize the disorder in cases in which the characteristic motor anomalies were altogether absent. In the early part of this century, however, the general consensus of opinion favoured the view that in the absence of the specific motor symptoms the diagnosis of epilepsy must be made with a considerable degree of mental reservation. On the other hand, Kraepelin in 1906 stated that only the frequent and entirely similar return of such disturbances as convulsive seizures, fainting fits, attacks of giddiness, states of semi-consciousness, and depression, which he thought all belonged to one definite group, and without external cause, was conclusive of the diagnosis of epilepsy. Likewise, in 1911, de Fursac was of the opinion that only upon the entire symptom complex together with the previous history of the patient could the diagnosis of any epileptic manifestation be established.

From this time onwards, too, it had begun to be recognized that there existed a type of epilepsy in all essentials similar to that caused by organic brain changes but in which no such changes could be found post mortem. To this form the name idiopathic or essential epilepsy was given. With this observation, soon generally acknowledged, the conception of epilepsy as a single entity had to be abandoned, and a plurality of forms, based on a plurality in aetiology and pathogenesis, took its place. It will be appreciated that this constituted a tremendous advance, especially when it is realized that up to fifty years ago epilepsy was still held to be related to the neuroses and was referred to as one of the "insanities connected with neuroses", amongst which insanities were classed hysteria, epilepsy, chorea, paralysis agitans, and exophthalmic goitre.

Aetiology.—From the psychiatrist's point of view the clinical presentation of a case of convulsions combined with psychic changes, or of disturbances in consciousness combined with psychic or personality changes, should always excite the suspicion, in the first place, that one might be dealing with a form of symptomatic or acquired epilepsy. Amongst the causes of organically-induced fits we must place increased intracranial pressure, cerebral inflammatory conditions,

intracranial hæmorrhage, thrombosis, embolism, and trauma ; syphilis of the central nervous system, cerebral arteriosclerosis, and pre-senile states ; as well as such toxic states as might have been caused by lead, alcohol, carbon monoxide, cardiazol, and others. Other causes, such as parathyroidism and uræmia exist, but the above types are the more likely ones to be dealt with by the psychiatrist.

The choice of precipitating causes is, in fact, very large. Yet, in spite of this, we are still left with a high percentage of epileptics in whom none of these can be blamed for the fits, and to whom therefore the term Idiopathic Epilepsy is applied. It is the idiopathic epileptic with whom, in the main, the psychiatrist has to deal. At the same time a physiological substratum to the pathology of this phenomenon, whether the precipitating cause of the fits be somatic or psychological, must be posited in the light of much recent work in the field of electro-encephalography. The primary basis of the fit would be a discharge from cortical neurones, and the loss of consciousness would be the result of this sudden and random bombardment by neuronal discharges ; definite and typical changes are shown in the electrical potential of the brain when epileptic attacks involve the brain. Consciousness at any one moment depends on the activation of certain neural pathways, but coincidentally with this there are other pathways which should remain inhibited ; failure of inhibition of such pathways as are not needed would then result in loss or impairment of consciousness.

Disturbances in wave rhythm and excursions, as registered by the method of electro-encephalography (E.E.G.), have provided us with a new approach to the problem of aetiology in epilepsy. Instead of speaking of idiopathic epilepsy, suggests Stanley Cobb, we should rather speak of inherited epilepsy ; in some cases the inherited dysrhythmia is so marked that no precipitating cause is needed to bring on the fits, in others such a cause is needed. At the same time, negative findings at autopsy do not rule out the possibility of an ultramicroscopic chemical disorder of the cerebral neurones underlying the abnormal E.E.G. waves. The cause of the dysrhythmia, therefore, is still unknown, though its heritability cannot

be doubted. Lennox, and Gibbs and Gibbs, found that the number of persons with disordered E.E.G. waves among parents and other relatives of epileptics, and also in the general population, outnumber persons with declared epilepsy more than twenty times. Are we to look upon these as carriers? At least, it may be argued that an epileptic diathesis or cerebral dysrhythmia (Lennox) is heritable.

The hypothesis of the existence of an inherited tendency would explain why head injuries are followed by fits in some persons and not in others: the predisposition must be the deciding factor in such cases. The same would apply, for instance, in those cases in which alkalosis, or other metabolic disorders, cause convulsions, and those in whom some psychological factor must be presumed to be the precipitating agent. Further, it is suggested by the above pioneers in this field, that symptomatic epilepsy does not occur in the absence of a pre-existing E.E.G. abnormality, which itself is inherited as a simple dominant. If these theories are correct we may have to discard the old division of epilepsy into symptomatic and idiopathic, and substitute for these terms, as Cobb advocates, the words acquired and genetic. In the present state of our knowledge, however, this would be too great a leap in the dark, and we must await improved biochemical methods for the discovery of the nature of the presumed ultramicroscopic disorder of the cerebral neurones which may be the cause of the E.E.G. abnormalities.

With the introduction of the concept of an inherited dysrhythmia we must revise the many theories as to the causation of epilepsy so far brought forward, or at any rate we can no longer accept these as truly expressing causes, but rather precipitants. All we can say is that there exists in the cortex some focus of conflict between the mechanisms of excitation and inhibition, and that this focus may be activated by a multiplicity of excitants, whether a cerebral tumour, a psychological upset, a disturbance of water balance, a toxin, or any other accredited stimulus.

Though the above account may sound a note of optimism regarding the aetiology of epilepsy, it must be mentioned that not all workers on E.E.G. are agreed as to the types of

waves which should be considered as symptomatic of the disease. The E.E.G. patterns in epileptics are variable, and many of these patterns resemble those found in other disorders; consequently, our diagnosis of epilepsy should always rest on the conjoint findings in E.E.G. tracings, the clinical history, other accepted laboratory tests, and clinical appearances.

Pathology.—The morbid anatomy of the post-mortem epileptic brain reveals few, if any, changes, nor are these changes constant. Acquired pathological lesions there may be, such as those that are grouped under intracranial organic diseases, but apart from these there is nothing definite as a rule. Sclerotic changes in the cornu ammonis, recently described, await further observations; some superficial gliosis of the hemispheres has been noted, but these are probably secondary to the vasoconstriction of the brain vessels (Spielmeyer). The morbid changes occurring in cases of acquired or symptomatic epilepsy are fully set out in text-books on neurology.

The *psychopathology* of idiopathic epilepsy has been the subject of much psychiatric writing, and it must be conceded that, amongst epileptics of long standing, at any rate, there occurs with frequency a fairly definite personality picture. The idiopathic epileptic, it therefore appears, suffers from a genetic dysrhythmia amongst his cerebral neurones, plus a personality colouring of a typical kind, plus certain episodic disturbances of consciousness. Many workers consider that these personality marks existed before the episodic attacks began, and this accords with our supposition that the genesis of most psychiatric syndromes is to be sought for in childhood. If we are prepared to accept the theory of the genetic character of the epileptic dysrhythmia, then we must also be prepared for the assumption that such a physiological abnormality carries with it a psychological one. If in every case of abnormal E.E.G. records in persons who have not yet developed episodic changes in consciousness, and in whom no organic lesion is discoverable, a psychiatric personality history were taken, we should be in a position to prove or disprove this contention. The correlation, if any can be

proved to exist, between cerebral dysrhythmia and an epileptic personality type would certainly help us towards a clearer conception of the nature of the disease. On the other hand, it may be that the peculiarities of behaviour and of thought process, as found in the idiopathic epileptic, are the result of his fits—a less likely hypothesis, to say the least.

Not all workers agree with L. Pierce Clark's concept of the pre-epileptic character and his interpretation of the fit as a flight from reality, yet few could deny the existence of a character make-up found in epileptics only. In his speech the patient is circumstantial; he wanders, along uncertain associative routes, from item to item, until at last he reaches the pith of what he wants to convey. He is stubborn in the face of advice, and his interests run along a very narrow groove; he therefore makes little progress in any direction, unless judiciously coaxed. He is eminently egoistic, and indifferent to others, even as he is intolerant. He clings emotionally to certain persons, and towards these he behaves in an immature and dependent way, giving them his childish confidences and acting towards them very much like a leech towards its host. Pedantry, bigotry, fussiness, and pietism are generally applicable to him. His religiosity has been looked upon as a hypertrophied inhibiting mechanism to his innate brutality and criminality.

Deterioration in such a personality may be expected to occur in the direction indicated by the above description. He becomes centred in himself and his sensations, more and more withdrawn from outside contacts and interests, and with this diminution of interest goes a slackening of attention and a failure to remember imperfectly registered impressions. He now becomes idle and careless of his appearance, and this increases to the degree of complete passivity and finally to hebeticude, a stage in which even his excretory functions become neglected. Always slow in thought and action, he may eventually become practically mute, immobile, and demented.

The episodic losses of consciousness have been interpreted as attempts to retreat from threatened defeat, the latter eventuality being constantly before the mind of all those,

and eminently so the epileptic, who are burdened with the complex of inadequacy and inferiority. In this way, too, the epileptic is presumed to escape the urge to brutal assaults and murder. Like his own aggressive convulsions he is a killer without mercy, and he is continually being offered the choice between killing or sinking beneath the level of awareness. For killing, it should be added, he may substitute larceny, arson, sex offences, epileptic furor, automatisms, and so forth. The tendency to dissociation is certainly evident in these mechanisms, as it is also exemplified in his hallucinatory states, his deliria, his daydreams, his absences, and his pronounced fantasy life generally.

According to Stekel (1923) epilepsy is more frequently than is generally supposed a psychogenic disease, in which a strong criminal tendency is being forced out of consciousness and replaced by a fit. The latter then represents guilt and the punishment of guilt by dying. He considers that such forms of epilepsy as are psychogenetically induced can be cured by psycho-analysis. It must be remembered that this opinion was expressed many years before the discovery of electroencephalography or its application to the epileptic brain, and yet it has become really pertinent to the present theory: a tendency to cerebral dysrhythmia, genetically handed on to the bearer, receives a psychogenic stimulus, and a particular epileptic paroxysm occurs as the result.

Symptomatology.—Episodic attacks of impairment of consciousness form the nucleus of the syndrome epilepsy. In some cases loss of consciousness is attended by falling, or by incontinence, or by both falling and incontinence, or by motor convulsions. Between the simple lapses from consciousness and the severest convulsions all grades are met with, the former having been given the name *petit mal* and the latter *grand mal*. The minor form is one pole of an ingravescent line culminating in the major form, and between the two we find sensory, psychic, and motor fits of many types and variations. Whatever clinical expression may be adopted by an individual predisposed to epilepsy, there are, as we have seen, precipitating factors, such as trauma, metabolic disturbances, water retention, pituitary dysfunctions,

and psychological upheavals. Neurologists are, on the whole, averse to the theory of psychogenesis in epilepsy, and one can only wonder from what funds of experience and knowledge of psychiatric medicine, and of analytic literature in particular, they draw their conclusions. We repeat: given a predisposition to epileptic modes of reaction, whose mystery neurologists themselves have so far failed to solve, we possess sufficient proof that the trigger-mechanism activating such a predisposition may be psychic, somatic, or both.

1. *The Convulsive Attack*.—Here we have the extreme manifestation of epilepsy, known as the major attack, or grand mal. The onset is quick and dramatic. The patient utters a cry and loses consciousness, falls to the ground, then becomes rigid, and finally exhibits clonic movements of the whole body. The fit passes off into sleep and the whole episode is covered by amnesia. If the fit is also preceded by an aura we are in the presence of the classical and typical grand mal seizure. But not all these features are present in all cases. Thus, the pre-convulsive cry is very frequently absent, and the same is true of the aura; nor is the fit necessarily followed by sleep. For the sake of description we shall use the classical fit as prototype.

The aura may be of the psychic kind, such as feelings of unreality, or of *déjà vu*, or of fear; sometimes they are observable by outsiders as irritability, depression, paranoid expressions, bad temper, or a confusion in speech, or a sudden running forward as if the patient were impelled by fear. Visual auras may consist of mere flashes of light, of red colours, of ordered and complex scenes; auditory auras are described as words, sentences, or noises; sensory auras, as all kinds of sensations such as tingling, numbness, hot or cold feelings, electric shocks, abdominal pains, or giddiness; hallucinations of smell and taste are sometimes complained of before a fit; some patients state that their convulsions are preceded by isolated muscular jerks or by involuntary movements of limbs, or by a brief turn of the head and eyes. Other variations of the aura have been noted, such as dream states, rages, fugues, and states of exaltation.

During the convulsion itself the tonic phase shows the body to be in the position approximating that of decerebrate rigidity: the arms are adducted at the shoulders, flexed at the elbows and resting on the chest, flexed at the wrists, with the fingers extended at the interphalangeal joints and flexed at the metacarpo-phalangeal joints; the legs lie extended and the feet inverted. With the spasm of the respiratory and abdominal muscles deep cyanosis sets in. The pupils are dilated, the light reflex is usually abolished, as is also the corneal reflex; tendon reflexes are lost and the plantar reflexes may be of the Babinski type.

This so-called tonic phase, after some seconds, breaks up into clonic spasms, sharp, short, and jerky. The tongue may be bitten, there is foaming at the mouth, sometimes incontinence of urine or even of fæces, sweating, and coma. When the fits succeed one another rapidly the condition is referred to as status epilepticus, which invariably spells danger. Various kinds of automatisms may follow the fit, sometimes harmless, sometimes highly dangerous to others or to the patient himself. Abnormal psychic states are, however, infrequent, and as they are usually the same in any one patient they can be guarded against. Automatisms may, however, replace the fit; they are performed during a state of impaired consciousness and may on this account become a matter for medico-legal experts.

2. *The Minor Attack*.—In this type of epilepsy, known as petit mal, a momentary impairment in consciousness constitutes the whole epileptic manifestation, although here too the impairment may be of all shades or depths. It may merely amount to an almost imperceptible interruption of the patient's activities lasting but a fraction of a second. Or he may go pale, turn his head on one side, look bewildered, and then continue whatever occupied his attention at the onset, the whole episode lasting a few seconds only. Or again, consciousness may be disturbed for a longer period and the patient wanders away into a dream state, or may have feelings of *déjà vu*, a fugue, rage, or a confusional state. The amnesia which follows the minor fit is seldom a total one, and the patient returns to normal with the knowledge that he has passed through one of his strange experiences.

3. *The Epileptic Equivalents*.—This somewhat ambiguous term is used to cover all those manifestations which do not issue in convulsions or in detectable loss of consciousness, though awareness is doubtlessly impaired to varying degrees in all of them. Automatic acts belong to this category; as do also paroxysmal variations of mood, sudden outbursts of temper, auras of various kinds, and isolated jerkings. These must, of course, be assessed against a background of existing epilepsy, and they are better named interparoxysmal attacks.

4. *The Epileptic Variants*.—Amongst other types of epileptic episodes we may mention the *Jacksonian* form, in which an organic focus in the precentral convolution initiates a localized convulsion; *uncinate epilepsy*, in which the patient complains of bad smells and tastes, followed by movements of mouth, tongue, and jaws, and in which memory becomes impaired. Both these types may be closely simulated by idiopathic epilepsy and need, therefore, to be carefully distinguished therefrom. Other types are described in text-books on neurology, such as tonic epilepsy, reflex epilepsy, *epilepsia partialis continua*, and others.

In *pyknolepsy* we have a form of variant found in children up to the age of ten, which is characterized by the occurrence of numerous attacks of partial loss of consciousness a day, with cessation of all voluntary activity, while habitual or automatic movements remain unimpaired. The prognosis is good, and the attacks appear to be self-limiting in a matter of a few years.

Cataplexy and narcolepsy are here included merely on the basis of their paroxysmal character. In cataplexy the patient loses all power of movement and even of posture control, but consciousness is unimpaired: the attack is frequently brought on by emotional upsets. In narcolepsy the patient suffers from uncontrollable attacks of sleep, preceded, or attended, by loss of consciousness in all respects identical with normal sleep. The two conditions are often found together, and other sleep disturbances are usually present.

The so-called *medullary epilepsy*, or vaso-vagal attack, is in reality a manifestation of an anxiety state. The patient feels

cold and sick, sweats profusely, complains of severe palpitation with a sense of constriction in the chest, and a fear of approaching death. In the absence of organic disease in the region of the medulla it is safe to assume that we are dealing with a case of anxiety hysteria.

The illusion of *déjà vu* and its correlate *jamais vu*, are psychologically related to the epileptic disturbances of awareness, but they are also frequently associated with depersonalization and feelings of unreality, all four phenomena sharing the same psychopathology. The situation giving rise to *déjà vu* has an associative link with an unpleasant past event which has undergone repression. The patient reassures himself against the insecurity of the repressed event by assuring himself that it has all happened before and that he has survived it. At the same time he is perplexed because he feels that his recognition must be a false one, and in his perplexity he proceeds, unconsciously, to rationalize the occurrence.

Case.—A boy of 17 gives a history of fits which began at the age of eleven. All he remembers of these fits was that he found himself unable to recognize his whereabouts or to recall his name for a few seconds. As these episodes repeated themselves he reported them to his parents, not so much because they worried him but on account of his feelings of being 'odd man out' amongst the other boys. He had started to masturbate about this time and he secretly thought that God was punishing him in this way. He became very religious, but continued to masturbate all the same. At this time, too, he complained of being unable to learn anything by heart, and any kind of examination made him afraid to go to school. He was also afraid to go to bed alone, to be in the dark, to go away from home any distance, or to walk through a field in which cows were grazing. Two years later an E.E.G. examination revealed the typical cerebral dysrhythmia of the epileptic brain. For the past three years he has exhibited several of the varied manifestations met with in this type of personality: (a) he finds it difficult to narrate anything that has happened because he keeps talking round and round the subject and "I can't seem to get on with it and the other boys make fun of me"; (b) he suddenly ceases to "understand what anyone is saying although I can hear them perfectly, and this gets me muddled up"; (c) he suddenly ceases all activity, drops what he happens to be holding, sways a little, and looks vacant—after which he feels all right again and picks up whatever he has dropped, and realizes at the same time that he has had a 'turn'; (d) he has a

convulsive attack, always when in bed, about once in three months, which is often followed by enuresis and pains in the limbs; (e) he gets sudden uncontrollable inclinations to go to sleep, no matter what he may be doing at the time, and to these he is forced to give way (we watched him settling himself in a wheelbarrow one afternoon and go fast asleep for ten minutes, after which he awoke refreshed and ready for work). All these symptoms were greatly reduced in frequency under the combined treatment of psychotherapy, benzedrine, and soluble phenytoin.

Prognosis.—It is a fact that many epileptics never need hospital care, and that a considerable percentage lead useful lives and are able to support a family. Secondly, amongst those in mental hospitals or colonies there are a fair number who likewise do not deteriorate. Thirdly, the deteriorated epileptic is a common sight in all such institutions. Early treatment certainly staves off the advent of dilapidation, and, in other cases, slows down the process appreciably. At the same time the problem why some deteriorate and others do not remains one for investigation and research. It has been suggested that the difference is due to constitutional or inborn differences. The number of fits is not so important, many 'symptomatic' epileptics showing dilapidation even before the fits have begun. Brain injury would appear to be a more important precursor to dilapidation than the presence of genetic epilepsy: in both types improvement in the mental condition may be expected from anticonvulsant drugs, and especially if treatment is begun soon after the first fit. It has also been observed that with a worsening of personality dilapidation the number of fits increases, though the converse is not necessarily true. Remissions, though they occur spontaneously in a few cases, should on no account be relied upon.

Diagnosis.—Before we are enabled to make a diagnosis of idiopathic or inherited epilepsy we must rule out a number of neurological conditions with which fits are known to occur, as also a number of paroxysmal disturbances in which impairment of consciousness constitutes a leading symptom.

In all cases a history of the fits should be obtained, and this follows the usual lines of medical history-taking, particular attention being paid to the record of ancestors, collaterals,

and siblings with a view to eliciting in them the presence or absence of epileptic phenomena.

Secondly, no diagnosis can be said to rest on sure foundations unless an electro-encephalogram has been taken. Alternatively, the injection of pitressin together with the administration of copious amounts of water has been claimed to induce fits in idiopathically predisposed individuals, and the method would furnish us with an additional means for diagnosing the presence of idiopathic epilepsy (*British Medical Journal*, 1943, I, 102).

The list of organic causes, or of organic precipitants, is a long one, as it is also a heterogeneous one. Intracranial pathological states include increased intracranial pressure from various causes, inflammatory conditions, trauma, degenerative states, and circulatory disturbances. Of non-focal causes there are endocrine disorders, metabolic dysfunctions, the anox-æmias, and exogenous poisons; finally, the heredo-degenerative disease known as Friedreich's ataxia and its many variants.

Narcolepsy and *cataplexy* possess distinctive features and should cause no difficulty; the former is a sleep disturbance, and in the latter we find loss of postural power with retention of consciousness.

Fainting attacks, or syncope, are slow in onset and recovery, and there is no rigidity but rather flaccidity; its immediate cause is impairment of the cerebral circulation. It may, however, be followed by an epileptic seizure.

Vaso-vagal attacks are so clearly psychogenic and exhibit such a definite clinical configuration that their presence should give little room for doubt.

Epileptic convulsions may be closely simulated by the *hysteric*. Here we must bear in mind that the hysteric possesses a motive, and that his fits are called into play for the benefit of an audience, whether of one particular person or of several. Secondly, he will show none of the signs found during a true epileptic fit, such as profound loss of consciousness, incontinence, Babinski's reflex, the tonic-clonic sequence. Moreover, he will try to avoid all dangerous situations, nor does he indulge in automatisms after his fit, nor in prolonged sleep. It is unlikely, too, that the hysteric will give a history

of the occurrence of fits in early childhood. Finally, in favourable circumstances, a distinction may be drawn between the epileptic and the hysterical personalities. But, above all, the hysteric gives evidence of a purposiveness, both in his choice of circumstances and in the actual convulsion mimicry.

Treatment.—The treatment of idiopathic epilepsy should be carried out with the double purpose of relieving the seizures and of helping the sufferer towards a better understanding of the meaning of socialization. The epileptic fit is a symptom which must be attacked by a number of methods, and these include alleviation of the convulsions or of the episodic loss of consciousness, the avoidance or elimination, if possible, of exciting causes, and the re-organization of the personality structure. The days when fits were left to the heavy-handed mercies of the bottle of bromide are, let us hope, now past. We agree with Stanley Cobb's quotation of Pierce Clark; "The epileptic and not the disease must be the main concern of therapeutics."

Since control over the seizures constitutes our first care, and since this measure is still in the main a question of finding a suitable anticonvulsant, we will briefly consider those drugs that are chiefly used at the present time.

Bromides were at one time used universally, but they have largely been replaced by the barbiturate group. If bromides are chosen they should be given in doses of not more than gr. 20 three times a day. It is well, in order to enhance the action of the drug, to reduce the intake of common salt to a minimum. The addition of 3 minims of liquor arsenicalis to each dose will reduce the risk of bromide acne, but it must not be given over prolonged periods since arsenic itself is frequently followed by skin eruptions. Bromide treatment should be controlled and kept at its lowest effective dosage by monthly blood examinations. Excess of bromide is clinically indicated by ataxia, bradycardia, and somnolence; if 60 grains in 24 hours is insufficient to control the fits then it is advisable, rather than increase the dosage, to supplement the treatment with luminal. It should, however, be added that each patient is a law unto himself, and no universal ruling can be laid down as to dosage.

Barbiturates, in the form of phenobarbital (luminal), are on the whole more widely successful as anticonvulsants than the bromides, though it must be admitted that here again the idiosyncrasy of the patient is a factor to be reckoned with. Somnolence and depression are much less marked than with bromides, though the daily dosage should not exceed 2 gr. Barbiturate intoxication is clinically manifested by ataxic gait, increased pulse-rate, diminished respiration-rate, a fall in blood-pressure, and skin eruptions. Respiratory paralysis or vasomotor collapse may be the cause of death. In some cases a combination of bromides and phenobarbital gives the best results. Phenytoin sodium (epanutin) is a very efficient anticonvulsant, and its administration is not followed by somnolence; moreover, it appears to improve the general behaviour of the patient.

Status epilepticus should be treated by an intravenous injection of from 5 to 15 gr. of luminal, chloroform being administered until the drug acts. Intravenous sodium amytal, gr. $7\frac{1}{2}$, acts more rapidly and very effectively.

For children the same treatment holds good, with suitable reduction in dosage, and with the addition of a ketogenic diet; two years of such treatment usually gives good results.

That idiopathic epilepsy is not primarily a psychological disorder has been clearly brought out by the above account; that the essential or immediate cause of this disease has not yet been discovered is equally clear. But the fatuous and wholly irresponsible unfavourable pronouncements made by some psychiatrists and neurologists upon the adjunctive value of psychotherapy in non-dementing epileptics must not be left unchallenged. We say without hesitation that the physician who neglects this part of the treatment fails in his duty towards the patient. By means of psychotherapy fits can be reduced in number and the fit habit undermined; their occurrence can be averted or temporarily postponed, and their importance in the patient's life reduced to reasonable proportions. The idiopathic epileptic comes to look upon his seizures and upon their perpetual imminence as his own ever-present shadow, or rather as an *alter ego* that must not be denied and to which he must resort in moments of crisis or frustration. It is this

attitude which we are called upon to change, both by our efforts to re-integrate the personality and by lessening the occasions of such psychic determinants as we know from experience will bring about a fit. Amongst the elements that will need analysing are, first and foremost, his aggressive tendencies, the urges towards brutality and cruelty ; then his sexual difficulties, which are usually of an immature and infantile type ; his childhood traumata, to which he clings as an explanation for all his shortcomings ; finally, his many fears, which he has long ago chosen to repress or suppress lest they detract from his ego-value. No epileptic can afford to lose any part of this fictitious value which he has set up for himself and which is a reaction to the inadequacy complex found universally amongst them. Only those who have seriously attempted the psychotherapeutic method in the treatment of idiopathic epilepsy, in combination with the non-sedative diphenyl hydantoin derivatives, are in a position to deny to this disease an all too common fatalistic attitude.

The general management of the epileptic includes the establishment of regular hours for occupation and rest throughout the twenty-four hours. He should be excluded from occupations which are intrinsically dangerous, either to himself or to others, but he should nevertheless be allowed his fair share of minor risks incident to the life of the average individual. Food and drink must be given in moderation, excesses in either being avoided ; alcohol must be rigidly and absolutely excluded from the diet.

Above all, the epileptic must be looked upon as an individual, and full allowance made for his assets and deficiencies. It is true that he is a member of a disease-community, and that as such he shares in certain general characteristics common to all its members, such as egocentricity, perfectionism, exaggerated conscientiousness, and so forth. But these are not beyond the corrective influence of psychotherapy in the epileptic any more than in other individuals.

The management of the deteriorated epileptic must be carried out in an institution, where regularity of life and the careful supervision of drug treatment will help the sufferer a great deal. Added to this a plan to keep him occupied with

useful, or even productive, work will lessen his interest in himself and slow down the pace of his threatening dementia. Psychotherapy in dementing epileptics is out of the question. Of late it has been suggested that there exist constitutional differences between the deteriorating and the non-deteriorating epileptic, but the quality of these differences is still unknown. Deterioration is shown by the minority only, many among the remaining majority leading long and useful lives.

No hard and fast rules can be laid down regarding the marriage of epileptics, as too little is known about genetics. Doubts as to the advisability of suspects getting married may to some extent be relieved by an investigation of their E.E.G. waves. Inherited dysrhythmia may indicate a carrier, and two such carriers should certainly avoid having offspring. The probability is that when a person with a normal E.E.G. marries a person with an abnormal E.E.G. the offspring will be normal. Further than this we cannot yet prognosticate.

B. HUNTINGTON'S CHOREA

Half-a-century ago the types of chorea held to be of psychiatric importance were as many as they were varied. Sydenham's Chorea counted among its complications Choreic Mania and Delirium Acutum. Other types were Chorea Minor; Chronic Chorea or Tic Douloureux; Diaphragmatic Chorea—a facial spasm accompanied by an involuntary cry; Hemichorea; Epidemic Chorea—a manifestation of mass hysteria(?); Chorea Festinans; Maniacal, Hysterical, Mental, Mimetic, Methodical Chorea; and a host of others—some twenty-five in all.

Among these Huntington's or Hereditary Chorea figures as a disease occurring in whole families and affecting most adults. It was described as consisting of irregular, inco-ordinated movements, which appeared first in the facial muscles and spread thence to the upper extremities and trunk. It was known that the disease was heritable and incurable.

The modern description has not a great deal to add to the older conception. The disease manifests itself from the age of 35 onwards and its first visible signs are the choreiform movements. It is inherited as a simple dominant. Post-mortem examination shows it to be essentially a degenerative

condition, mainly affecting the corpus striatum, with a reduction in numbers of ganglion cells in the caudate nucleus and the putamen, and a compensatory increase in neuroglia. Cortical changes have also been noted, such as shrinking of ganglion cells and a reduction in the amount of white and grey matter. The degenerative state of the cerebello-cortical path interferes with the normal cerebellar control of volitional movement, the involuntary movements being release manifestations associated with disease of the basal ganglia.

The athetosis first affects the face and upper limbs, and does not, in the initial stages, interfere unduly with voluntary movements. The individual involuntary movements begin with a jerk in the head and shoulders and end in a slower, stretching activity of the arms, but all varieties of choreic activity may be shown. Dysarthria comes on early and the patient's speech is all but unintelligible; writing becomes impossible, and swallowing difficult. At the end of some fifteen years from the onset the patient is bedridden and demented.

The mental symptoms, which may in some cases precede the physical, begin in the domain of the socialized personality. Ordinary tidiness and cleanliness are neglected, rudeness and aggressiveness become gradually more marked, until the patient throws off all the inhibitions imposed by civilized society. Irritability and extreme lability of temper make him unfit for life outside an institution. Dementia is progressive; attention, memory, and judgment are impaired, the impairment becoming more profound year by year; the patient expresses delusions and is hallucinated. His mood is most often one of depression, though at times his irritability and overactivity may give the impression of euphoria, and it eventually ends in apathy and complete inertia.

Other conditions might be mistaken for Huntington's chorea, but a careful history of ancestors, added to the rather distinctive clinical picture, should guarantee a correct diagnosis. *Maniacal chorea* is an acute disease mostly found in primiparæ. *Progressive lenticular degeneration* occurs in the young, is familial, and associated with cirrhosis of the liver. *General paresis* can be ruled out by its serological reactions and by the

absence of iridoplegia. *Disseminated sclerosis* is found in young people and exhibits distinctive neurological signs.

Huntington's chorea is a progressive and fatal disease for which no form of treatment is known.

C. ENCEPHALITIS LETHARGICA

We are here concerned with those aspects of post-encephalitic phenomena of interest to the psychiatrist, and they include the myoclonias and the mental deviations. The symptoms of the acute stage form a fairly constant triad, and consist of headache, inversion of sleep rhythm, and double vision. The patient is somnolent and lethargic by day and becomes restless and irritable at night, this inversion frequently persisting into the chronic stage.

Symptomatology.—The residual features of the disease are the ones most likely to be met with in psychiatric practice, and they include sleep disturbances, myoclonias, choreiform movements, Parkinsonism, oculogyral spasms, mental abnormalities, convulsions, tics of many kinds, and tremors.

Sleep disturbances vary from inverted rhythm to almost complete sleeplessness or profound somnolence. Narcolepsy has also been noted to follow the disease.

The myoclonias and other involuntary movements are met with both in the acute and the chronic stages. Choreiform movements are the most frequent of all in the chronic stage, and do not differ from other types. An unusual form of movement, resembling athetosis, though much slower and more rhythmical, is that known as bradykinesis. It is carried out in a slow manner, most often along the long axis of a limb, and is associated with torsion of the limb or of the trunk. Oculogyral spasms form another conspicuous symptom in many post-encephalitics. The eyes become deviated upwards and the lids are retracted, the spasm lasting from a few seconds to some hours, and being only imperfectly under control when an attempt is made by the patient to recover ocular balance.

Parkinsonian rigidity, which may be one-sided or even confined to one limb, does not differ in the main from other types occurring in disease of the substantia nigra and the

corpus striatum, except that the concomitant tremor is less marked and may be absent. Movements are slow, deliberate, and weak.

Tics frequently affect the respiratory mechanism and may vary between apnœic pauses and hyperpnœic attacks. They may, however, follow a more complex pattern, such as nose rubbing, saltatory spasms, rhythmic muscular movements, coughing, hiccup, waving the arms up and down, and so on.

Tremors are rarely as conspicuous as those seen in other forms of Parkinsonism, and consist of rhythmic alternating movements of opposing muscle groups. Convulsions sometimes occur, but it is likely that the pathological process of encephalitis lethargica merely acts as a precipitant upon an already existing dysrhythmia. They may follow prolonged attacks of apnœa.

The most striking symptom in the adult post-encephalitic is his almost complete absence of movement, during the major part of his waking hours, in a somewhat unexpected setting of clear consciousness. That is to say, his apparently vacant stare and immobility suggest, on first impressions, the presence of the catatonia seen in the schizophrenic. Reduction in intellectual efficiency is certainly present in nearly all cases, but this does not amount to anything like the depth suggested by the patient's outward appearance, except in the last stages when complete deterioration may set in. This intellectual reduction is probably part of the generalized impulsive poverty so well seen in the impaired motility of the whole muscular apparatus: not only are movements slow, they frequently stop dead after having been initiated, or the patient may entirely lack even the urge to initiate a movement, and appears to be apathetic towards anything and everything. Nevertheless, one has witnessed such bradykinetics, to whom the lifting of a cigarette to the mouth was a slow and ponderous process, disport themselves with skipping rope or dumb-bells with rhythm and quickness.

The emotional colouring is on the whole, perhaps, a depressive one. But any other affective disturbance may show itself, such as euphoria, anxiety, and even a marked emotional lability. The depression is largely a reactive state engendered

by the crippling physical condition and the tragic realization that a life of interests and activity is for ever ended. It is not confined to any particular body build, nor does it wholly conform with the clinical description of the depressions of the manic-depressive syndrome, since his retardation is imposed upon the sufferer by a clear somatic pathology, and his depression does not stand in need of bizarre rationalization. The euphoric post-encephalitic, on the other hand, has lost insight and must be deemed to have entered the category of the psychotics. In spite of what has been said it is possible, nevertheless, that the encephalitic process acts as a precipitant to a pre-existing psychotic or neurotic trend. Affective indifference may constitute the leading emotional state.

In those cases where repetitive movements, such as tics and spasms, are prominent, obsessive and compulsive phenomena have also been noted in the psychic field. Projective reactions have also been met with, and they accord, in the main, with the existing emotional state.

Case.—A motor engineer, aged 35, believed that his mother was responsible for his illness and that he heard her voice calling him filthy names all through the night. He was depressed, extremely slow in all his movements, and showed a well-marked inversion of sleep rhythm; his mathematical skill remained untouched and his reasoning appeared to be undiminished, except in the domain of his mother-relationship.

Compulsive thinking, phobias, panics, automatisms, delusions of influence, and antisocial acts have all been described by various observers. It will be seen, therefore, that the varied list of mental symptoms suggests the hypothesis of the encephalitic process lighting up a particular mental disposition rather than giving rise to a psychiatric state specific to the focal intracranial disease.

Children react to the encephalitic process in a way very different from that described for adults. In a measure their symptomatology is suggestive of the syndrome known as Psychopathic Personality, from which it may be difficult to diagnose. Although depression may be the leading clinical mark it is not at all frequent. Rather do we find a hyperkinesis, which is coupled with an exuberance of conative drive of an

antisocial nature. These children give us the impression of having lost all moral sense ; they are no longer influenced by outside authority, nor do they possess the inner realization of obligations imposed by their surroundings generally. They lie, steal, destroy, and indulge in sexual activities unfitting to their age. Thus, we have ourselves seen a boy of 14 who had made repeated attempts to obtain carnal knowledge of two middle-aged women who had, in turn, been placed over him as guardians. Regret after the act appears real on the surface but it never holds out long enough to give him strength in the face of the very next temptation. To punish the child is rather worse than useless.

The change from a normally-behaved child to this travesty of childhood takes place insidiously, naughtiness gradually giving way to incorrigible perverseness and finally to a picture of violence, sadism, eroticism, and complete amoral anarchism.

The child's schoolwork suffers through lack of attention and concentration, with consequent failure to register new impressions and hence also inability to make any progress whatever. Long before gross symptoms have appeared the child will probably have come under suspicion of being mentally defective, a condition which may, in fact, set in later on.

Pathology.—The naked-eye appearances of the acute encephalitic brain show congestion, some œdema, and superficial hæmorrhages. The microscopic changes are more constant, and of these perivascular infiltration stands out conspicuously ; the vessel walls show dense cuffing with lymphocytes and plasma cells, chiefly in the region of the basal ganglia and the hypothalamus. Degenerative changes occur in the neurones, and the cortex exhibits discrete infiltration with mononuclear cells. The parts of the nervous system most affected are the region of the substantia nigra, the grey matter of the upper part of the midbrain, and the region of the Sylvian aqueduct. In the chronic form the substantia nigra appears to suffer the most, though it is not unusual for the disease process to invade the cerebral cortex, the pons, the medulla, and even the cord.

From the psychosomatic point of view it has been suggested that in encephalitis we meet with the double process of

disinhibition and release. Cortical control suffers impairment and lower centres assume a variable degree of autonomy over personality expression. Hence those manifestations of lack of judgment and inappropriateness of word and action, the failure of self-criticism, and the submerging of the regard for ethical or moral codes beneath the greater insistence of the ego-serving instincts. But this is not to say that the brain-stem has any claim to being a particular seat for any particular faculty. For the functioning of the total personality we need a normally integrated central nervous system ; more than this we are in no position to say. The argument of those who wish to go beyond this is based on the supposition that where the disease process mainly interferes with inhibition of the lower centres we shall find behaviour disorders ; and where the disease process affects both higher and lower centres we may expect diminution in the strength of the instinctual elements of the personality with consequent apathy and disinclination to share in the life of realities. For its very neatness and simplicity such a theory must come under suspicion.

Prognosis.—The outlook for the chronic post-encephalitic with Parkinsonism is distinctly bad, and a return to work, though this may exceptionally happen, must never be promised. The process may become halted, or alternatively, proceed steadily, and finally completely incapacitate the sufferer. On the other hand, much can be done to alleviate the psychic symptoms by judicious and patient psychotherapy where these symptoms lean towards depression or anxiety. These, as we have previously mentioned in this work, are fundamental signs of mental disturbance, and they are amenable to psychotherapy. But where a reactive elation exists such therapy is of little help, and the same holds good in cases of apathy ; in the first instance, the patient has invoked his own remedy of flight into fantasy and has passed beyond psychiatric help ; in the second instance, the patient lacks even the modicum of interest necessary to accept help.

Paradoxically, in children, behaviour disorders, which in the majority of instances are uninfluenced by treatment, sometimes improve with the onset of Parkinsonism.

Diagnosis.—The adult post-encephalitic with well-marked features of Parkinsonism may at first sight simulate *catatonic schizophrenia*. In the latter we may find *flexibilitas cerea*, and the immobility, or catatonia, is, moreover, different in its attitudinal expression from that of Parkinsonism. Again, the encephalitic is in touch with reality and his actions and speech give no signs of that distortion found in the malignant psychosis. The mutism and negativism of schizophrenia are unknown in encephalitis, unless the two diseases co-exist. We will add that the reality of the encephalitic is neurologically determined, whereas the posturings of the schizophrenic are psychologically determined.

The possibility of *intracranial disease or skull injury* must not be overlooked in coming to a diagnosis, especially where there might be involvement of the frontal lobes.

In children the diagnosis of *psychopathic personality* may well suggest itself. The encephalitic child shows more restless activity and pointless, impulsive behaviour. Here, too, we may have the advantage of a history showing the occurrence of a febrile illness, with inverted sleep rhythm and double vision, later on followed by the behaviour disorders already referred to.

Treatment.—The treatment of the post-encephalitic state in the adult usually resolves itself into a reduction of the Parkinsonian rigidity and a psychotherapeutic re-orientation of the individual's reactions to the disease. But from neither drugs nor psychotherapy should we expect too much, the disease continuing its course in spite of all attempts to stop or even to slow down its progress.

The only drugs which have any effect on the rigidity are those belonging to the belladonna group of Solanaceæ, and their action is peripheral, not central. Incidentally, they also diminish all glandular secretions by paralysing the nerve-endings to the glands, and thus they reduce salivation and sweating, both of which may cause discomfort.

There are many preparations on the market, all containing atropine in some form. Atropine sulphate in solution (0.5 per cent) may be given in doses beginning with 1 minim three times a day, and gradually increased until no further

benefit is registered ; or belladonna tincture in doses of 30 to 60 minims spread over the twenty-four hours ; or stramonium in doses of from 30 to 150 minims in twenty-four hours, in the form of tincture. As all these drugs are deliriant narcotics, as well as mydriatics, they are best given in conjunction with pilocarpine gr. $\frac{1}{2}$ twice a day. Pain is best treated with aspirin, and for sleeplessness barbitone in 2 -gr. doses, with or without aspirin, is the remedy of preference.

Other physical measures, apart from attention to general hygiene, are physical exercises, massage, and passive movements.

Psychotherapy constitutes, in adults, a method of treatment of great value in the hands of experts, that is, of those whose knowledge of analytic literature and whose daily experience of this form of procedure qualify them to hold out such hopes to the sufferer as shall be neither too sanguine nor too pessimistic. The disease is a physically and æsthetically crippling one, slowly progressive and truly catastrophic to the total person considered in the light of his pre-morbid self. It is incumbent upon us to give to such wreckage of humanity something rather more than the benefits of the pharmacopœia, valuable though these be. These symptoms are not the direct expression of a physical lesion, but the total reaction to the situation produced by such a lesion (Jeliffe), and therefore we should probe the motives and urges of the psychobiological individual as a whole. It is clear that an alteration has occurred in the neuromuscular apparatus and that the patient's mental symptoms are the reactions of the ego against the inner perception of this change (Hoffer), a change which holds out a threat of mutilation or dissolution—or of castration, in Freudian terms.

We must, therefore, in the first place obtain a life-history of the patient, setting down factual occurrences in chronological order, during which procedure the pre-morbid personality will also come to light. And, clearly, the pre-morbid personality is the material upon which the disease process imposed itself and which it tends to distort. It is also the material with which the disease process is met and by which it is handled. To explain this to the patient and to help him to reduce the

distortion of his personality, these are the basic principles of our therapy. We cannot, to any great extent, alter the physiological process, but we can influence the patient's psychic reactions to it, and, indirectly, we believe, the crippling effects of that process.

In children, because of their restlessness, aggressiveness, and general intractability, institutional treatment offers in most cases the only hope of improvement. Suitable occupation and firm handling, tempered with kindly understanding, form the mainstay in our therapeutic approach. The various types of delinquents so often met with amongst chronic post-encephalitic children and adolescents can now be classed under the heading of Moral Defectives and dealt with under the Mental Deficiency Act, 1927.

CHAPTER XII

PSYCHOTIC REACTION AND SENESCENCE

THE passage of time, and all that this involves by way of emotional and physical output, leaves behind it certain visible signs of wear and tear upon the whole body economy, as it also effects inner changes and even microscopic alterations in tissues, mainly of a degenerative nature. Questions of profound interest arise when we attempt to formulate a theory which will explain the nature of this wear and tear. We shall, for instance, wish to know why psychoses occur in old age and whether or not they could be prevented ; why they conform to a simple and circumscribed typology ; whether there are any definite genetic factors involved ; and many other queries, which are the more important in that statistics compute that the 65-year-old population will have risen from 6 per cent in 1921 to 10 per cent and more by 1971. When we say that the typology of senile dementia is uniform and simple, we should add that psychoses of earlier and middle life may also affect old age, and that these include mania, depression, paranoia, many organic psychoses, and, more frequently than is generally supposed, anxiety states.

We have used the word senescence as representing normal physiological old age (Letienne), in contrast to senility which represents its pathological correlate, senescence being regarded as the natural process of growing old just as adolescence is the natural process of growing up. At the same time this theoretical distinction is found to present difficulties when we try to correlate the two concepts with physiological involutional changes on one side and definite pathological lesions on the other, the dividing line being very slender. Indeed, some workers have declared that uncomplicated senile death is a rare occurrence. Perhaps the most important changes, apart from the obvious physical ones, occurring in senescence are

reductions, and these affect practically the whole range of life's potentialities—in the field of emotion, of conation generally, and of the intellect. There occurs a restriction in desires, affections, and the capacity for empathy; acquisitive ambition, whether in the direction of physical prowess, financial enrichment, or fame seeking, is no longer as compelling as formerly; diminution, too, occurs in the capacity for perception, attention, receptivity, and memory. When these reductions reach a certain—arbitrary—degree we speak of senility.

In senility impairment of all the person's capacities has become so marked as to be easily noticeable to all those around him. A description of this impairment leads us to the symptomatology of senile states, of the senile dementias, and those particular diseases incident to old age known as Alzheimer's Disease, Presbyophrenia, and others. We might have included cerebral arteriosclerosis amongst these, but on the strength of certain clinical differences between the two conditions we shall consider the vascular diseases separately.

At the same time it must be pointed out that the degree of cerebral arteriosclerosis present in the senile states very appreciably affects the whole conformation of the latter syndromes, and represents, in fact, a determinant element in the development of a senile psychosis. But whereas in the senile psychosis we have to consider such circumstances as personality, constitutional peculiarities, and so forth, in the cerebral arteriosclerotic these factors are of relatively minor importance, the vascular disease having struck the individual in very much the same way as any other organic disease might have done, though with the added, complicating circumstance that cerebral functions are destroyed in the process.

The senile psychoses, as well as the cerebral arteriosclerotic ones, have received a great deal more psychiatric attention recently than had been the case hitherto. This also applies to senescence generally and to all disease processes commonly met with in old people.

Ætiology.—Little is as yet known of the genetics of senile mental states. Some evidence has been brought forward in favour of the theory that Alzheimer's disease is heritable as a

simple dominant, but apart from this nothing more definite about any of the senile or pre-senile mental states has been discovered in the field of genetics. Pick's disease is believed to be a heredo-degenerative disorder, with a possible dominant inheritance.

In the psychiatric disorders of the aged we must, as always, posit many aetiological factors. Psychological stresses, such as bereavements, and social changes in the direction of insecurity, enter into the lives of most old people, just as somatic changes occur in all old brains. The psychotic determining factor either eludes us or merely turns on the fortuitous location in the brain of whatever degenerative process happens to be present. Studies in heredity are, so far, unconvincing in their results. Investigation of the pre-morbid personality is, perhaps, more revealing, in that simple senile dementes are said to possess a well-adjusted personality, whereas those showing psychotic reactions have also shown, in earlier life, traits of abnormal personality. These researches suggest a division of senile mental states into senile dementia and senile psychotic states, the former attacking individuals of all types of personality, the latter only appearing in those whose personality was never stable. And, amongst these, we shall frequently find the domineering, ritualistic, uncompromising obsessionals, the pietists, the single-track travellers, the religious bigots, and the headstrong opponents of anything that does not conform with their narrow ideas and principles.

It would therefore seem as if the provocative elements underlying the development of senile mental states, apart from any co-existing cerebral arteriosclerosis, are a particular kind of inherent constitutional structure of the personality, the strains and stresses of life, and the lifelong indulgence in abnormal mental mechanisms in the face of life's realities. The senile psychotic has, in fact, always suffered from an imperfect sense of those multifarious obligations towards the social milieu whose fulfilment should have been a bulwark against the danger of becoming an alien amongst his fellow-beings. To this we should add that in a very large proportion of seniles there is the factor of loneliness at home and general social insufficiency.

In the light of this hypothesis, and with the advancement of psychological concepts and their application, senile mental abnormalities should be reducible both in number and in severity during the years to come. There still remain, however, those symptoms which are the result of cerebral degenerative processes, and these are clearly not amenable to psychological treatment. There are, therefore, three major types of mental disturbances incident to old age: the first is the result of a weakening in the repressive forces of the psyche; the second includes the various kinds of psychoses which may attack the old as well as the young and the middle-aged; the third consists of those syndromes that are the result of degenerative processes in the brain. It is with the first of these, and to some extent with the second too, that psychiatric preventive treatment will deal most successfully, if carried out earlier in life.

Symptomatology.—It has been computed that about half the senile psychoses are of the simple dementia type, and some 20 per cent are of the delirious and confused type. The depressed and agitated represent 7 per cent, the paranoid 16, and the remainder, such as Alzheimer's disease and presbyophrenia 8 per cent. Generally, the symptoms include any or all of the following: insomnia, irritability, anorexia, fabrications, wandering, affective lability, loss of empathy, egocentricity, temper outbursts, disorientation, antisocial behaviour, sex offences. Often insight is retained.

I. SIMPLE SENILE DETERIORATION.—In simple senile deterioration there occurs a general loss of all-round efficiency. Gradually interests have been narrowing and lessening. Habits and opinions are set and there is an intolerance of anything new. The patient, instead of remaining in touch with current affairs and topics, tends to reminisce. His planning and scheming are poor, and at the same time he is unwilling to realize his weaknesses. On the whole he tends towards suspiciousness. As a further development his memory becomes impaired to varying degrees, he is inclined to wander away, he loses the appreciation of time, and misidentifies people. Over and above these signs of mental dilapidation there are frequently present some or all of the

signs of cerebral arteriosclerosis, such as fatiguability, irritability, lack of emotional control, episodes of mental confusion or of difficulty in thinking, and even convulsive attacks.

Forgetfulness becomes more marked as time goes on. The patient loses all sense of orientation in space and time and fails to recognize even familiar faces. He may become testy, and intolerant of all and everything, or excessively fussy and exacting. His lack of endurance is marked, and he reaches a point where he merely vegetates. He may give evidence of giddy or fainting spells, complain of pressure sensations in the head, and pass through periods of aphasia.

Added to this there may be hallucinatory experiences, often of a gruesome type, sometimes childish, nonsensical. Delusional formations are centred, most often, round poverty or destruction; or the patient imagines that he is being used for some evil purpose, or that he is about to meet a terrible end, or that he is to lose his will, his freedom, and even his identity. Illusory misinterpretations of sights, sounds, and smells are invoked to strengthen his delusions, which latter are usually more absurd and impossible than the delusions in any other mental illness.

It is, then, when a senile person begins to express delusions of persecution or thoughts of a depressive and fearful sort that we speak of senile psychosis, and such psychoses, as has been said, may be found in the old as well as in the young or in the middle-aged; they are incidental to, and not the effect of, old age. An old person may be elated or depressed, these two affective states being the dominant ones; or he may show signs of what has been called "late catatonia". But apart from the poorness of the delusional structures, and the possibility that pre-morbid personality traits may assume psychotic dimensions when freed from repression, the types of psychosis differ but little from those encountered at other ages.

2. ACUTE DELIRIOUS REACTIONS.—An acute delirious reaction, frequently nocturnal, occurs in some senile persons, and this is in many respects similar to the acute toxic delirium of the organic psychoses. The patient wanders around as if in an hallucinatory dream world in which fear and panic figure prominently. He is completely disorientated for time,

place, and persons, and suspects all efforts to help him or to control his movements of being attempts on his life.

3. SENILE DEMENTIA.—Senile dementia is a term applied to those states in which, we may say, a complete return to archaic, instinctual existence has taken place. Whether we are to call such states by the name presbyophrenia, or Alzheimer's disease, or senile dementia *sui generis*, is a moot point. For the sake of completeness of description, and because of the existence of certain distinguishing marks between these syndromes, we have thought it best to adhere to the hypothesis of their clinical and pathological separateness.

The senile dement exhibits to a profound degree the characteristic failings of the deteriorated senile person. The onset is slow and insidious, marked by remissions and relapses. When established, the disease is marked, clinically, by severe memory defects, involving absolutely all recent events and invading even the territory of the distant past. He no longer knows the details of his family tree or even of the existence of his brothers and sisters. Soon he will lose his own identity. Confabulations are freely resorted to and applied to both immediate and remote times. Because of his permanent state of confusion and his complete inability to remember, he expresses delusions of persecution, and his insight soon becomes nil. This state of mind may lead him to accuse others and to use physical violence. Vascular accidents may punctuate the course of the disease, marked by aphasias, amnesias, and monoplegias. Eventually he becomes bed-ridden, incontinent, and helpless in every way, until death, which may be long postponed, supervenes.

4. ALZHEIMER'S DISEASE.—This disease ranks as one of the pre-senile dementias and develops between the ages of 50 and 60. It occurs most frequently in symptomatically pure form, though occasionally it exhibits signs and symptoms indicative of admixture with Pick's disease, cerebellar atrophy, and spastic paraplegia. It appears to preponderate amongst women, and to be far more common than is generally thought. During the past four or five years the disease has been the subject of careful investigation, in connexion with which the names of McMenemey, Spatz, and Stengel stand out.

Whilst it is true that a typical case is not often missed, it is equally true that many are misdiagnosed as cerebral arteriosclerosis or senile dementia, senility having assumed as great an elasticity in point of time lapse as has the notion of the menopause.

A patient suffering from Alzheimer's disease hardly ever sits down to rest but moves about the room apparently aimlessly all day, busying herself with what she imagines to be her old occupation: polishing ornaments, wiping crumbs off the table, making beds with the cushions, putting chairs straight, and so on. Her memory, simply, no longer exists; she misidentifies everything and all persons; she mistakes even animals for human beings and vice versa. Apraxia and agnosia may be marked; a pencil is her mother's hairpin, a shilling piece is her long-lost brooch, and a cigarette lighter is something she must put into the piano. Emotionally she varies from hour to hour, and she is markedly suspicious. She is disorientated for time and place, and her confusion interferes with her understanding of what is required of her or said to her. Speech defects are common, such as echolalia, incoherence, stereotypy, and profound reduction in vocabulary.

Stengel has remarked on the habit of some of these patients of talking to their own image in the mirror, and he suggests that this might be an attempt at fighting their sense of self-estrangement. One of our patients used to stand before a brass finger-plate on the door and hold a conversation with her imaginary sister on the other side.

Subjectively the patient is distressed, especially at the beginning of her illness when she vaguely realizes the seriousness of her predicament. But when the disease is fully developed distress is replaced by irritability and aggressiveness; sleep and appetite remain unimpaired as a rule.

5. PICK'S DISEASE.—In this disease the hereditary factor has been frequently noted, as also early manifestation, in some cases as early as 21.

In contrast to the previous syndrome, indolence is the characteristic in Pick's disease, the patient having lost all initiative. She sits from day to day in the same position, although she may occasionally be persuaded to do some light

work or may even ask for something to do. But this happens seldom, and the patient would appear to be complacent, rather than over-active as in the case of Alzheimer's disease.

Memory is variable, and in some cases has been found unimpaired. Affect is labile, the patient weeps or laughs without much provocation, and her emotions are childish and shallow. As the disease progresses apathy sets in.

Speech becomes extremely circumscribed, both in expression and reception, leading eventually to complete sensory aphasia. Answers are stereotyped and limited; facetiousness has been described.

Other workers have observed moral and ethical looseness in the first stages, such as lying, drinking, stealing, squandering. At first, too, these patients exhibit lack of attention, indifference and poor judgment, as well as childishness in behaviour and a tendency to wander.

The disease lasts from two to ten years or more, and always ends fatally.

6. JAKOB-CREUTZFELD DISEASE.—The number of cases whose description corresponds to that of Jakob's original case is too small to warrant placing this disease into a category by itself, although more evidence is accruing to show that it may be a syndrome *sui generis*. It would appear to belong, like Huntington's chorea, to the pre-senile period and to lead to dementia in a very short time. The neurological signs are by no means constant, and the many descriptions given of varying neurological concomitants tend to throw doubt upon its nosological separateness. Thus, amyotrophic lateral sclerosis, Parkinsonism, spastic paresis, and cerebellar atrophies have all been reported in conjunction with dementia occurring during the pre-senium.

Pathology.—The morbid anatomy of the senile and pre-senile brain, where a psychotic state existed during life, consists mainly of degenerative changes, and these can be seen both macro- and microscopically. Whilst the brain volume and weight decrease, its coverings, the membranes and skull, undergo hardening and thickening. The ventricular cavities, as shown by air encephalography, are dilated, and the cerebrospinal fluid fills the cavities in larger amount, thus

compensating for the cortical atrophy. The latter is mainly due to a severe lessening in the number of neurones, with a corresponding neurogliosis. It is the clustering and mixing up together of neuroglial elements, many in a state of degeneration, and of degenerated neurones, which form the senile plaques (Fisher) almost invariably seen in old brains and in varying situations, though especially in the superficial layers of the frontal cortex.

In Alzheimer's disease the same changes are seen, only in a much more severe form. The cause of the plaque-formation remains a mystery, but it is probably a secondary phenomenon to condensation and coagulation of brain colloids which, in the normal or younger brain, are discrete and widely dispersed. Another correlated element in the formation of plaques and in the thickening of neurofibrils is the decreased water-binding capacity of the old brain, with consequent dehydration (Alexander and Looney).

In Pick's disease, according to its discoverer, we have a process of precocious ageing of the association centres. There is involvement of the frontal lobes especially, often symmetrical. The areas of degeneration and neurogliosis are mostly found in the cortex, though sometimes the substantia nigra and basal ganglia have been known to share in the process. Reduction in the white matter of the cerebral lobes also occurs. Other workers have found involvement of the caudate nucleus, the pallidum, and the subthalamic nucleus, but on the whole we should look upon the disease as one affecting mainly the genetically youngest cyto-architectonic regions, with corresponding disturbances in the highest cortical functions. Senile plaques do not occur.

Diagnosis.—Senile deterioration is a condition about which there can be little doubt from the first, and it is frequently diagnosed by the relatives of the patient. Senile dementia presents an even more clear-cut picture, and one with which the lay person is familiar. Difficulties arise when we attempt to separate the psychoses of the pre-senium from those occurring during the last years of life, or when we try to draw the finer psychiatric distinction between senile dementia and Alzheimer's disease, or between the latter and Pick's disease.

It is certain that many cases of Alzheimer's disease become lost amongst the larger group loosely called the senile dementias and thus never obtain their rightful diagnosis. It is equally certain that the rarer Pick's disease is exceedingly difficult to crystallize out from among the senile and pre-senile psychoses. Indeed, some workers hold that Alzheimer's and Pick's syndromes are clinically indistinguishable, and that only post-mortem evidence of their identities is a reliable guide and diagnostically conclusive.

On the whole the clinical configuration in Alzheimer's disease is one of restless, ill-directed activity of an 'occupational' kind, with massive loss of memory, and with distress or irritable aggressiveness. Apraxia is present in some degree in all cases; fits and muscular rigidity are found in many.

Pick's disease, on the other hand, shows few, if any, neurological signs. The patient is indolent, appears to be at peace with the world, and remains affectively neutral. Her memory does not deteriorate to anything approaching the extent exhibited by Alzheimer's disease.

In both diseases women are affected in by far the larger proportion; the patients sleep well. In these two points the diseases differ from cerebral arteriosclerosis.

The differing post-mortem appearances have been described.

In distinguishing senile dementia from Alzheimer's disease we should note in the latter an absence of fabrication and a greater degree of intellectual dilapidation, these two being correlative to each other.

Treatment.—As we are here dealing with a progressive degenerative process the question of treatment reduces itself to palliative measures. On the whole the care and attention needed by the senile sufferer are best given in a psychiatric home or institution, where a certain pattern of regularity can be introduced into a life that has become a formless existence. Deprived of a freedom which he no longer knows how to use with safety the patient usually settles down to an easy routine. He is thus prevented from wandering and, perhaps also, from getting himself into trouble with the law on account of some sexual or other antisocial offence. Recreation and some

form of employment suited to the individual patient should be supplied in order to fill in the increased leisure as much as possible ; this may help to delay dilapidation.

Good food, appropriate in amount, and much rest and sleep, constitute the main necessities, beside care of bladder and bowel functions. Drugs, such as paraldehyde or bromides, may have to be used in order to induce sleep. But as long as the patient is resting in bed at night sleep becomes of secondary importance, and only the restless or the night-wanderers are in need of soporifics.

CHAPTER XIII

PSYCHOTIC REACTION AND CEREBRAL VASCULAR DISEASE

Two facts stand out as a result of much recent work on this subject. The first relates to statistical proofs of a progressive increase in the number of old people, an increase largely due to the betterment of living conditions generally, and more specifically to the application of more enlightened health rules. The second relates to the now more universally accepted psychosomatic principles dealing with the effect of emotional tension upon blood-pressure. The number of arteriosclerotic psychoses has greatly increased during the past twenty years, mainly owing to the total increase in the aged population, but partly also to the severe demands imposed by an even more exacting civilization upon the human instinctual drives and their emotional components. And when we speak of the influence of the emotions upon vascular tension we wish to emphasize particularly the effects of aggressive hostile impulses, so often hidden behind a façade of urbanity, to which psycho-analysis has drawn attention. One bout of rage may have more harmful effects upon the body economy than a series of alcoholic orgies. Marked episodic or permanent variations in blood-pressure are then, in many instances, psychogenic in origin, and it is not improbable that in psychotherapeutic methods, applied to certain types of personality, we have a means of preventing cardiovascular hypertension to a great extent.

The cerebral blood-vessels share in whatever increased pressure the general systemic circulation is subjected to, but they are, it must be remembered, not merely conduction vessels of a passive type, but activated by sympathetic vaso-motor fibres of their own. The influence of the cortical centres upon blood-pressure is a fact of physiological and

psychological observation, and emotional stress of all kinds apprehended, if not always correctly analysed, by the cortex, will set in motion the complex mechanism of the vasomotor centre. At the same time we must remember that increased blood-pressure is not invariably present with arteriosclerosis; secondly, that general systemic arteriosclerosis does not by any means imply the presence of cerebral arteriosclerosis of such a nature, for instance, as to cause psychiatric symptoms; thirdly, that cerebral arteriosclerosis may exist independently of any marked peripheral involvement; finally, that the emotional trigger-habit is not the only cause of raised blood-pressure.

Symptomatology.—The history of a cerebral arteriosclerotic psychiatric state frequently begins with an acute cerebral vascular lesion, such as an embolism, a thrombosis, or a hæmorrhage. The patient survives the catastrophe only to start on a long road of gradual and almost imperceptible deterioration. He has reached the age of 60 or more and gives a family history of cardiovascular and senile disease, perhaps a manic-depressive heredity, and even a personal history of depressive attacks. On examination he is found to be suffering from hypertension, which is present in the majority of cases, or of retinal arteriosclerosis. Since his vascular lesion he has noticed that he is no longer as efficient as before, that fatigue comes on much sooner than it used to do, and that his intellectual functions have lost much of their former acuity.

As with the senile psychoses, memory becomes impaired, and this deficit eventually reaches a stage when the patient resorts to fabrications. At first he fails to remember recent events, forgets where he has put things, cannot remember the names of individuals whom he nevertheless recognizes, and later on forgets also distant events. He is no longer able to concentrate on anything, and this, in time, develops into clouding of consciousness and actual confusion with periods of complete disorientation.

Emotionally he is unstable, and appears, on occasions, to confuse laughing and weeping and to give way to both together. Irritability of temper becomes marked and may reach the point of aggressiveness and even physical violence.

Delusions are fairly frequent and they often refer to the married partner's infidelity. Depression, paranoia, and anxiety usually enter the picture, as well as episodes of delirium and excitement. Unlike the pre-senile psychotic he suffers from sleeplessness.

Later on confusion is marked and he becomes resistive. Gross discrepancies creep into all his statements. He may perseverate both with topics and words, and he begins to soil. Thus the initial stages of dementia are entered into.

Physical evidence of intracranial disturbance is furnished by occasional attacks of giddiness and fainting, with headaches, bouts of dysarthria, pareses, fits, and aphasias. These physical symptoms should always be carefully inquired into, as they form an important element in the differential diagnosis between senile and arteriosclerotic psychoses.

Case.—A 60-year-old manufacturer was seen at the request of his wife—his junior by fifteen years—because he had become suspicious of all her movements and had accused her of entertaining men while he was in bed. He kept complaining of headaches, and on two occasions she had found him lying on the bedroom floor where he had fallen after a giddy spell. When seen by the psychiatrist he was in a state of agitation and tearfulness, though his only complaint was that he could no longer play golf and that he kept forgetting people's names, even those whom he had known for many years. Ophthalmoscopic examination revealed the presence of arteriosclerosis. Blood and C.S.F. tests were negative. Blood-pressure 162 mm. Hg. He repudiated the suggestion that he had become suspicious of his wife's fidelity and became very emotional. Soon afterwards, however, he could be made to laugh, whilst tears rolled down his cheeks. He slept well on 10 gr. of aspirin, but seemed averse to getting up in the morning. At times he could not get the proper word out and this distressed him. He was suspicious of his son and of the way he was running the business, though he could be made to see that there was no foundation for his fears. He was fully aware of his deterioration and expressed anxiety and unhappiness about it. Three weeks later he had an attack of dysphasia, soon followed by a convulsive fit. Two years after this he was deteriorating rapidly and spent most of his time in bed. He died of a cerebral thrombosis at the age of 63.

Pathology.—The pathological, physical substratum of arteriosclerotic psychosis is an obliteration of cerebral blood-vessels followed by degenerative changes in the substance

of the brain. But in spite of this statement there are many cases in which the post-mortem findings of brain damage are severe and the symptoms during life were slight. Conversely, there are those whose symptoms during life were very marked and who, on post-mortem examination, show little or no anatomical changes at all. Rothschild (1942) suggests that these discrepancies are to be explained on the hypothesis that individuals vary in their power to compensate for brain damage. The present writer accepts this hypothesis, agreeing as it does with the general psychosomatic principles already alluded to elsewhere in this work, and with the psychobiological theory of Adolf Meyer. That certain personalities are better able to accommodate themselves to physical trauma and disease than others may be considered axiomatic. That in this respect an exception should be posited by some neuropsychiatrists on the grounds that here the brain itself is involved would appear to be tantamount to making the unwarrantable assumption that the brain is the seat of all our 'faculties', with character and personality structure thrown in.

When we speak of cerebral arteriosclerosis we usually refer to changes of a degenerative kind in the vessel walls. The result of this process is a progressive ischæmia of the cerebrum and the occurrence of patches of cerebral softening consequent upon thrombosis. Many kinds of vascular degeneration are described. Thus, (a) atheroma, or primary degeneration, affects the intima, and to a certain extent also the media, with proliferation of a compensatory kind around the plaque. Not a great deal is known of its causation. (b) Hypertrophy and degeneration of the media is the result of high blood-pressure. As a result of degeneration of the media atheroma occurs. High blood-pressure by itself may also be partly responsible for this. (c) Arteriocapillary fibrosis affects the whole thickness of the vessel wall, and especially those vessels supplying the neurones.

The changes found in the brain substance itself are, again, of a degenerative nature, with scattered areas of atrophy. Where the vessel has altogether been occluded we find softening in the area of its distribution, this area being at first white,

then red, and finally yellow; the neurones degenerate, and there is proliferation of neuroglia around the affected patch. Where there is granular atrophy of the cortex changes of a similar nature in the cortex of the kidney, with hyperpiesis, are usually concomitants. Arteriosclerosis of the basal arteries is often present.

Diagnosis and Prognosis.—Errors in diagnosis may largely be avoided if cerebral arteriosclerosis is diagnosed only in the presence of such general symptoms as headache, dizziness, and fainting attacks, and such focal signs as pareses and aphasias. Other features of diagnostic value are irritability of temper, emotional lability, projective mechanisms in the shape of ideas of infidelity, deliria, excitements, depressions, and a positive heredity. Senile psychoses begin, as a rule, later in life and progress towards dementia over a long period. Arteriosclerotic psychoses usually begin more suddenly, and the symptoms show remissions; intellectual impairment is less marked. Symptoms indicative of the presence of both senile and arteriosclerotic psychosis are often found together, but careful and frequent clinical examinations will usually elicit the predominance of one or the other.

The prognosis of arteriosclerotic psychosis is that of a progressive and incurable disease.

Treatment.—This is purely symptomatic. The choice of a suitable sedative to guard the patient against sleeplessness forms an important element in the general management. He is in many ways a difficult person to look after at home, and, as a rule, does better under trained supervision in a hospital or mental home where his continual need for sedation is not so imperative.

Psychotic episodes must be dealt with in a general psychiatric way, best known to those who are trained in nursing the mentally ill. Much can be done by the psychiatrist himself taking an interest in the patient, at any rate in the first stages, by encouraging those personality trends which may have social value, by allaying fears, by explaining to him in a simple way that he is ill physically and psychologically, and by giving him that modicum of sustaining hope which might be found justifiable in an occasional remission.

CHAPTER XIV

PSYCHOTIC REACTION AND DRUG ADDICTION: THE ADDICTION NEUROSES

THE double heading of this chapter is meant to convey, in brief, the double aspect of addiction, especially in respect to alcohol. But for the fact that the drinking of alcohol over a prolonged period calls forth, in certain types of individuals, a psychotic reaction, the whole question would resolve itself into the psychopathological entity of addiction neurosis with specific reference to the ingestion of drugs such as alcohol, morphine, and others.

Drinking to excess is always a symptom. We will go further, and state that teetotalism is also a symptom. But, whereas the alcoholic (or other addict) finds rationalization for his symptom more difficult and transparent, the ferocious teetotaler possesses a rich store of explanations and justifications wherewith he succeeds in covering up his guilt, his fears, his conflicts. This dichotomy into alcoholism and teetotalism is, ostensibly, merely a superficial division into two kinds of symptom-complex; fundamentally, it may well constitute the two opposite poles of one and the same neurosis, both poles representing exaggerated reactions in consciousness to unconscious factors.

But if excessive drinking is an indicator of deep-seated difficulties, it may also unmask a psychosis, even as it may bring to the surface psychoses which are directly attributable to the toxic effects either of large doses of alcohol taken over a short time or of less excessive doses taken over a period of years. Further, the immediate effect of a single over-indulgence in alcohol may merely consist in the unmasking of certain personality maladjustments or defects, which appear on the surface as peculiarities of behaviour foreign to the individual.

ALCOHOLISM

History.—It was Magnus Huss who in 1856 introduced the term alcoholism to cover the whole range of disorders caused by alcoholic liquors. Amongst the aetiological factors were included heredity, profession, conditions of debility, cerebral disorders, and the drinking of alcohol of inferior quality. Some twenty years later it was stated that there are as many forms of alcoholism as there are alcoholic beverages and as there are drinkers. In the early history of civilized man alcohol was considered a poison, later on a remedy, and in the sixteenth century a universal panacea. Towards the latter part of last century one begins to come across such statements as that there might exist a peculiar mental state which predisposes an individual to indulge to excess in drinking, and that there are certain tendencies in the innermost nature of some men which make them more inclined than others to commit excesses in drinking. Then, side by side with such enlightened theories, the more ingenuous classification peculiar to that epoch crops up, and we find alcoholics divided into those who possess certain anomalies of instinct, those with defect of intellectual equilibrium, and the impulsive drinkers, the final summing up being that the great majority of drinkers are predisposed, disordered, and defective. At about this time, too (1870–1880), the different forms of alcoholism were said to include drunkenness, delirium tremens, subacute alcoholism, chronic alcoholism, melancholy and maniacal drunkenness, convulsive drunkenness, and the drunkenness of the epileptic. Ten years later we find the name Convulsive Neurosis applied to what had in the same context already been referred to as Alcoholic Insanity, the new name being based on the observation that the condition is “essentially of an impulsive nature”. This disregard for accurate nomenclature and definition, it will be remembered, was reflected also in the classification of epilepsy as a neurosis.

At the beginning of the present century alcohol was held to simulate mania, melancholia, paranoia, epilepsy, stuporose conditions, morbid impulsiveness, and progressive dementias. It was at this time, too, that the varieties of alcoholic psychoses

began to multiply in clinical classification, no fewer than nine types of chronic alcoholic insanity being described. Amongst these figures alcoholic amnesia, which probably represents the forerunner of the modern Korsakow psychosis. Kraepelin (1906) mentions a polyneuritic mental disturbance, almost always preceded by alcoholism, characterized by falsification of memory and traces of neuritis.

In 1911 we meet with a more definitely progressive and analytical psychiatry, and such queries occur as why an individual should drink alcohol in injurious doses, and why certain nervous systems are more susceptible than others to the toxic action of alcohol, although no answers to the questions are forthcoming.

Actiology.—The age at which alcohol begins to produce unequivocal symptoms in the addict is usually between 40 and 50, with a preponderating incidence amongst males. The role of heredity in alcoholism presents many problems. It is, above all, a subject about which there has been much speculation and much loose, exaggerated, and misinformed talk. Alcoholism by itself is, of course, not heritable. Yet some 30 per cent of inebriates give a history of alcoholic excess in one or both parents. We must therefore posit, in such cases, the existence in the parental germ plasm of a tendency to resort to some form of artificial cortical damping in the face of difficulties besetting the outer and inner life, and since alcoholic drink has been known for centuries to help the individual to escape, albeit only for a short while, from an unpalatable reality, it presents a method of easy choice. Alcoholism is not a symptom of loss of self-control as so many writers, owing allegiance to the era of mental faculties and unadulterated free will, aver, but is the expression of a desire, conscious or unconscious, to dip below the threshold of an awareness which is unable to deal with reality in a satisfactory way. We do not contend that free will does not exist, but neither do we accept it as that uncompromising abstraction vaunted by philosophers and moralists. With our greater knowledge of unconscious tendencies and unconscious activities we would place free will in its proper perspective and state that the degree of freedom of the will never

amounts to that absolute quantity assigned to it by didactic theoreticians, and that from it we must subtract the dynamic influence of those processes which are unconscious and over which we have therefore no control. To say, then, that the addict has lost the use of his free will is neither scientific nor true.

We may state, therefore, that a tendency to resort to some addiction is heritable, and if the choice of addiction possesses harmful intrinsic properties, then we may expect, over and above the symptoms of the psychic abnormality of which the addiction itself is only a symptom, manifestations indicative of the harm being inflicted by the drug upon body and mind.

Alcoholism is more frequent in men than in women in the proportion of 1.5 to 1, and some races provide a larger proportion of alcohol drinkers generally than others. The incidence of alcoholic psychoses is probably represented by 7 per cent of the admissions to mental hospitals.

Symptomatology.—It is clear that excessive and periodical drinking may be a symptom of existing psychotic trends, especially the manic-depressive one, and that it may unmask such psychotic reactions as the paranoiac and the schizophrenic, with or without hallucinosis. We shall therefore not refer separately to alcoholic paranoia or alcoholic hallucinosis. It is indeed possible that there are only two types of reaction specific to alcohol, one of these being delirium tremens, the other pathological intoxication. But for the sake of completeness we will include other well-known syndromes in our description.

I. PATHOLOGICAL INTOXICATION.—In this condition we see many of the manifestations of a delirious reaction acutely brought on and subsiding within a few hours, when it is followed by deep sleep and a variable degree of amnesia for the event. As in all delirious reactions there is clouding of consciousness, hypermotility, incoherence, and emotional lability, but all of these occurring in a marked degree.

The person in whom such a condition arises is in all cases a victim of personality abnormality. Sometimes this abnormality remains successfully hidden from those who know him,

in others it is just as patent. In all cases, nevertheless, the sudden outbreak of acute delirium after a small amount of alcohol, comes as a staggering surprise to friends and relations. The patient behaves in every way 'like a madman': he is confused and disorientated; he misinterprets sights, sounds, and people; he expresses delusional ideas, usually of a paranoid nature, and these may render him dangerous to others. In other cases the patient becomes profoundly depressed and may even contemplate suicide.

It seems clear that we are dealing here with an unmasked psychochoneurotic or psychotic trend which has hitherto been held in check by either the mechanism of suppression or that of repression. Our knowledge and experience of such cases are as yet too limited to justify any dogmatism on their pathogenesis. But we may certainly expect to find among such persons the hysteric, the epileptic, and the paranoid types. Amongst the few cases seen by the writer none could be clearly or definitely classed as either manic-depressive or schizophrenic; neither could any of these be distinguished as belonging to the class Psychopathic Personality, using the term in the sense implied by our description given in Chapter XV.

2. DIPSOMANIA.—Dipsomania or periodic drunkenness, on the other hand, is more characteristic of the manic-depressive rhythm. Here, too, we frequently find a projective mechanism, as expressed by marital jealousy and suspicion, uncovered either in the first stage of the drinking bout or as a rationalization after it. In between the bouts the affected person, at any rate during the first years of his unhappy progress through life, is frequently efficient at his work and successful in his undertakings. During the period of drinking he consumes a truly enormous amount of alcohol and alternates between stupor and depression which only a fresh supply of alcohol can drown.

Case.—A married man of 48, a house-painter, once or twice a year, and sometimes more often, would amass a large number of bottles of beer and spirits, lock himself up in an attic room, and proceed to drink till he was incapable and, to all appearances, unconscious. During the night he would sleep off the effect of

the day's debauch and start again in the morning; and again the next day. After three days (usually) he stopped drinking. Then, in order to rationalize his behaviour, he would begin to complain about his wife's "strange behaviour towards other men"—plainly a projective figment of his imagination—and would even broach the subject to his son and daughter. He also complained that the neighbours underestimated his worth as an outside decorator and that they had "put their heads together not to have him do their houses". When this phase had passed off he became once more a thoughtful husband, a good father, and a very efficient workman. When approached on the subject of his drinking he minimized the quantity he had drunk and gave the usual drunk's explanations for his excesses. As a rule his temper was such that no one dared to refer to his orgies any further.

3. DELIRIUM TREMENS.—This is an acute psychosis, with a toxic basis, occurring after the age of 30 in a person in whom the alcoholic habit is well established. As in all toxic deliria the two outstanding abnormal phenomena are hallucinatory experiences in a dream-like setting, and disorientation in one or all spheres.

Usually the delirium begins at the end of an especially prolonged drunken episode, though it is also known to occur after an injury or during an acute physical illness. We do not yet know of any theory which will satisfactorily explain why some chronic alcoholics develop a toxic delirium of this type and others do not. To blame only the toxic effect of alcohol for so serious a disease as deliriums tremens is, clearly, insufficient, and we are forced to suspect the presence of an additional factor. Vitamin B₁ deficiency, or possibly a general vitamin deficiency, which is known to be associated with Wernicke's encephalopathy, may enter into its pathogenesis. Thiamine and vitamin C deficiency may play a part. It is known that nicotinic acid and riboflavin form part of a system whereby alcohol is metabolized in the brain. Of aetiological significance also is personality structure, some persons being especially prone to dream-states and hallucinosis either when in severe pain, or under the influence of strong emotion, or as a concomitant of even a slight rise of temperature. Extraverts would appear to be very much more prone to delirium tremens than introverts, whereas the latter are in excess among those with acute hallucinosis

and paranoid states (Hock). At the same time, as Schilder observes, the specificity of the hallucinations, such as the seeing of rats and mice, argues in favour of the belief that one is here dealing with something organically rooted (as in the deliria of atropine and of encephalitis lethargica).

The illness, before the onset of the more dramatic symptoms, usually begins with certain premonitory signs of which apprehension, insomnia, and unproductive over-activity are the most prominent. If he does sleep, the patient continually wakes up in a semi-dream state, terror-stricken by hallucinations of a menacing kind, and these are translated into visual illusions of an equally fearful kind when he passes into consciousness. By this time, too, he is already in a state of dehydration and acidosis for the lack of sufficient food and drink, against both of which he has for some time past felt aversion. It is when in this state that he rapidly passes into the typical delirium of the disease.

Consciousness becomes clouded, and with it there occurs much confusion and profound disorientation. He knows neither time nor place, and misidentifies people around him. He indulges in fantastic fabrications, at which he may himself be amused, although euphoria is much less common than fear or even terror. He is restless to an alarming degree and feels compelled to busy himself with some imaginary occupation; this motor hyperactivity constitutes a serious threat to his myocardium, which in chronic alcoholics is not infrequently degenerated.

Hallucinations of sight appear to him in the shape of moving beasts of a queer pattern, or of small, rapidly moving animals, all of which inspire him with fear and loathing, and from which he tries to struggle free. Other hallucinations, such as tactile and olfactory ones, may also occur. The patient may hear voices, and these are most frequently of a derogatory or defaming type, to which he may respond in words, or in violent deeds against anyone on whom his suspicion may happen to fasten.

Suggestibility is heightened, and the patient may be made to weave all sorts of fantasies around sounds heard, words spoken, or things seen. But whilst his attention is easily

drawn it cannot be held. Nor does he remember anything that is said to him for even as long as a single minute.

On the physical side there are coarse tremors, affecting the hands, the facial muscles, and the tongue. Speech is slurred. Temperature rises, the pulse becomes rapid and irregular, and the patient perspires profusely. Deep reflexes, unless abolished by a coincident neuritis, are increased. The urine shows albumin and the blood a leucocytosis. Convulsions may occur.

The usual course of the illness is towards recovery at the end of a week to ten days, unless an existing myocardial degeneration has been lit up by the toxic process, in which case the prognosis becomes bad. Intercurrent pneumonia likewise makes the outlook hopeless. The mortality of delirium tremens is about 6 per cent. As a rule, however, the effects of the acute toxæmia pass off, the fearful hallucinations recede or disappear altogether, and the patient finally sinks into a prolonged sleep. From this time onward his convalescence may be said to have started.

The pathology of delirium tremens presents, as do all fulminating toxic processes, a mixture of inflammatory and degenerative changes. Thus, we find neuronie destruction side by side with neurogliosis and small-cell infiltration, and also punctate hæmorrhages. The cerebellar tracts may be involved, and the meninges are inflamed to a slight extent.

4. KORSAKOW'S PSYCHOSIS.—The striking psychic symptom in this disorder is the profound amnesia coupled with a rather glib facility in filling in the gaps with fabrications or in falsifying what vestiges of remembered material remain. It is a syndrome demonstrable in other forms of serious organic brain disease, as well as in many endogenous toxæmias and after head injuries.

The Korsakow psychosis, then, though not peculiar to the alcoholic, often follows in the wake of alcoholic chronic intoxication, and not infrequently emerges after what at first was considered a case of delirium tremens, in which, however, the usual sleep crisis did not materialize. It may also develop in the chronic alcoholic.

Polyneuritis coupled with mental abnormality was first described in detail by Korsakow in 1887, although it had been referred to by Mills and Starr in America in 1886 and 1887 respectively.

As the appreciation of time and place is dependent upon the efficient working of observation and memory we shall here find disorientation in time and place very marked. Misidentification of persons likewise follows from these defects. The patient appears to be fully conscious and in touch with his surroundings, but this state of affairs is short-lived, and soon he will show signs of confusion and typical disorientation, the former being intimately bound up with the latter. The polyneuritis affects predominantly the periphery of the limbs and in a symmetrical manner, associated with wrist- or foot-drop in the most severe cases, and with blunting of all forms of sensibility. Pressure upon the calf muscles may cause intense pain. On the other hand, polyneuritis may be absent from the syndrome.

Apart from the symptoms already mentioned—that is, memory defect, confabulation, disorientation, and polyneuritis—nystagmus is often present, as are also ocular pareses and speech defects. Visual and auditory hallucinations are common. Mood varies between a euphoric irritability and a true reactive depression. Insight is lacking. That even in chronic alcoholics alcohol is not the sole factor in the causation of this disease is clear; B₁ vitamin deficiency is probably another link in the chain, and in the hands of some workers prolonged thiamine therapy has brought about improvement in both the mental and polyneuritic symptoms. At the same time it is difficult to relate the vitamin deficiency factor to the Korsakow syndrome occurring, for instance, after head injury, or to the same syndrome when it clears up without any dietary treatment at all. In fact, the polyneuritis usually improves rapidly and may often disappear entirely.

The course of the mental part of this psychosis is practically always a prolonged one and leaves its victim permanently impaired in the direction of general efficiency and socialization. Emotionally he remains facile, and his memory seldom returns to its pre-morbid standards.

Post-mortem appearances include degenerative changes in the cortex, such as the deposition of large amounts of lipochrome pigment in the neurones and the glia, as well as along the course of the vessels. The Betz cells show acute chromatolysis. The peripheral nerves of the limbs exhibit the parenchymatous neuritic changes usually found in other forms of polyneuritis: myelin degeneration in the medullary sheaths, proliferation of the cells in the sheath of Schwann, and degeneration of the axis cylinders. Degeneration may also affect the posterior columns in the spinal cord, as well as the anterior horn cells.

Case.—A professional man of 55, whose wife had left him some ten years previously on account of his drinking habits, was admitted in a puzzled and perplexed condition. He stated that he had come in for a day or two while his laboratory was being got in order (he had, in fact, been moved from a general hospital where he had been an in-patient for a month); that his assistant was bringing him his microscope and the paper which he was engaged on (he had not worked for six months); that he knew the people here (whom he had never met before); that he had left his car running outside (he did not possess a car); and that he was in the throes of his old malaria again which he had caught out East (where he had never been). He complained of soreness of the skin and exhibited definite tenderness of the calf muscles. A few minutes after making the above-mentioned statements he had forgotten what he had said and then gave a completely different version. He was disorientated for time, place, and persons. He was jocose and irritable alternately. He willingly helped around the ward but soon forgot what he was supposed to be doing. He could not concentrate on anything and slept poorly. Two years later his condition had not altered.

5. ALCOHOLIC DETERIORATION.—Addiction to alcohol over a period of many years leads, in some cases, to somatic disturbances and diseases, such as cirrhosis of the liver, fatty heart, atheroma, and many others. Some alcoholics, as we have seen, develop frank psychotic symptoms. A proportion of chronic drinkers, on the other hand, exhibit a slow alteration in personality unity or integration.

Deliberation and sound judgment are probably the first of the finer personality qualities to suffer, and the affected individual is deflected from following the higher ethical

course by emotional factors which previously he had been able to control. He therefore becomes unreliable either in his judgment or even in his statements, since these have become subordinated to the distorting influence of the particular mood of the moment. Mood swings occur, in fact, with uncommon ease. The patient alternates between a facile tearfulness and a superficial euphoria, both states bearing the stamp of a regressive egocentricity. He is easily hurt, and when thwarted is liable to fly into a rage.

The chronic alcoholic makes much use of the projective mechanisms. He suspects his own family of acting behind his back to his detriment, even suspecting his wife of infidelity. He explains away his failures by blaming others for not sufficiently appreciating his qualities; in his distorted reasoning an unappreciative world does not deserve his best efforts. His efforts are, indeed, poor and ill-sustained and eventually lose all semblance of direction or object, although he himself is never at a loss to overestimate his own performances.

Differential behaviour is typical of the chronic alcoholic. At home he has become a mere figurehead, except perhaps for his outbursts of self-appointed punitive violence or uncontrolled irritability. He has ceased to command the love of his family and has become incapable of giving love to anyone but himself. On the other hand, with his drinking friends he endeavours to stand out as the victim of misunderstanding and lovelessness, as a paragon of generosity and good fellowship.

As deterioration progresses the patient approximates very closely to the borderline of dementia. He is no longer able to follow a train of reasoning, much less to initiate one, or even to pay more than momentary attention. With the failure of attentive process goes a failure to register impressions, so that memory becomes impaired, sometimes profoundly. By this time, too, all ethical and moral values will have lost their significance for him, and hardly a vestige of his former personality remains.

Insight is lacking throughout, and indeed cannot be expected. The alcoholic method of veiling realities, both

inner and outer, is so insistent a necessity and springs from such strong and deep-seated motives that only a prolonged form of psychotherapy can succeed in presenting the victim with an alternative method of coping with his difficulties.

Psychopathology of Addiction.—It will be seen that addiction to drugs by itself is the expression of a complex pathological state, basically the same in all victims, and varying in its superficial aspects only. Though much work has been done on this subject (Schilder, Freud, Hartmann, Tansk, Juliusburger, Abraham) the psychology of addiction has not by any means been solved yet. The problem is complicated by the twofold aspect of its mechanism. There is, first, the desire to take in a particular poison, and secondly the perpetuation of the desire as a side-effect of the action of the poison, the two being almost certainly inter-related. What that poison shall be depends on both the individual and on the circumstances surrounding his life, but the actual choice makes no appreciable difference in the elucidation of the unconscious motive behind the excessive craving, be this for alcohol, tobacco, morphine, cocaine, barbiturates, paraldehyde, or the weekly 'bottle of medicine'. In fact, Ernst Gabriel classifies all addictions under the generic name "Activity-addictions", and includes such compulsive activities as arson, kleptomania, nymphomania, certain forms of masturbation, vagrancy, collecting, and others. Moreover, two or more addictions are often found together in the same individual. For instance, a man of 35 sought admission for the relief of his addiction to hypodermic morphine. He was soon found to be also a heavy drinker and to smoke an ounce of tobacco a day. At bedtime he drank a dose of paraldehyde and took a barbiturate capsule "to make sure". Finally, all sweets, cakes, and biscuits had to be locked up during his stay. Besides this he was aimlessly restless, was a voracious reader, fell in love almost weekly with the most varied types of women, with whom he would merely flirt and never attempt intercourse, and had to be persuaded to keep away from his violin during at least certain hours of the day.

It is clear that the addict is psychologically immature, and equally clear that, consciously or unconsciously, he is

making attempts to shut out unpleasant realities belonging to the depths of his personality and which threaten to break through and disrupt its unity. Of this order of realities is homosexuality, which constitutes a more than frequent ground of conflict in addicts, and especially in alcoholics. As is well known, alcohol impairs potency, and with the reduction in potency it may be argued that homosexual tendencies emerge, as if the individual were reduced to a more primitive level of sexuality. Hartmann has suggested that in cocaineism the point of departure is the homosexual trend, and that in its turn the taking of cocaine strengthens the desire for such sexual inversions.

Delusions of jealousy, so frequent in the chronic alcoholic, stand in close relationship to repressed homosexuality. So also do the hallucinations of scolding voices, which may be regarded as the exteriorization of the super-ego, the projection of the punitive ego-ideal sitting in judgment upon the invert.

Other factors that may be found include manic-depressive cycles, feelings of inadequacy, asociability, and anxiety. How much any or all of these are in the last analysis founded on the basic homosexual complex must await further psycho-analytic research.

Treatment.—Analytic therapy constitutes the method of election in the treatment of all addictions and should be begun soon after the more immediately pressing physical symptoms have been relieved. Much resistance to this treatment must be expected, since the psychiatrist will be looked upon as the punishing father who threatens to take away the victim's only known way out of his difficulties and to expose the dreaded unconscious factor. Apart from this the patient is also being robbed of a self-indulging activity whose pleasing effects he has come to appreciate and value for their own sake. All other methods of treatment are strictly secondary in lasting value to the analytic approach, though they may be, and are, efficacious in removing the acute and distressing symptomatology brought on by the toxic effects of actual drug ingestion.

With analytic therapy should be conjoined an attempt to re-educate or re-orientate the patient's attitude to both the

world outside and to his inner conflicts as presented to him during his analysis. Especially should it be the duty of the therapist to expose to the patient the latter's life-long habits of looking for an escape from life's realities and of trying the impossible task of living in a world of illusion all the time, for the perpetuation of which habits he has chosen the help of artificial cortical dampers.

Lastly, the *sine qua non* of all treatment of addiction consists of complete and rigid abstinence from the drug. The latter should be replaced by a new philosophic outlook, or a new hobby, or a new occupation, each or all of these being calculated to impose a unifying pattern upon the patient's life.

Those addicts who, through their behaviour and habits, have become unfit to live socially useful lives, or who have become definitely antisocial, and who consistently refuse to undergo treatment, should by law be made certifiable. At the present time this is not the case, and we are forced to fall back on periodic police interferences, the breaking up of home and family, and the final commitment of the wreckages to mental hospitals.

Delirium Tremens.—The two important factors in the treatment of this condition are the possible damage done by the toxin to the myocardium, and the imperative urge on the part of the patient to escape from his hallucinatory persecutors. Drugs which shall act as cortical sedatives without danger to the heart musculature are, therefore, of first importance.

The choice of drug may have to vary with the individual patient and no hard and fast rules can be laid down. Veronal is the most frequently useful, given in three doses of 10 gr. during the first twenty-four hours. The continuous warm bath may with advantage be administered in conjunction with the drug. Where indicated strychnine and digitalis should be prescribed, as also alkaline solutions to reduce acidosis.

Elimination of the toxin should be encouraged by hot baths, the exhibition of calomel and salines, and the giving of plenty of bland fluids.

Feeding may have to be carried out by nasal tube, and in this case a stomach wash-out should precede the operation. Milk will form the staple food for the first few days, after

which eggs and other light nourishment must be added to the diet.

Cerebral dehydration has been advocated, and may be effected by the intravenous injection of concentrated magnesium sulphate solution or of a 25 per cent dextrose solution. On the other hand, spinal puncture may be performed, some 30 c.c. of the spinal fluid being drawn off in cases where the C.S.F. pressure is increased.

Korsakow Psychosis.—The patient will be certifiable and removed to a mental hospital. His amenability to the general treatment for alcohol addiction will most probably be negligible, and care and attention must be directed to the alleviation of the polyneuritic symptoms and to sedation. Rest in bed at first is essential. Vitamin B₁, either in the pure crystalline form or as green vegetables, butter, carrots, and mammalian liver, should also be administered. Later on massage and electricity are indicated, but only when neuritic pain and tenderness have disappeared. Threatened foot- or wrist-drop are indications for such active treatment and for the encouragement of voluntary movements of the affected parts.

Chronic Alcoholism.—The chronic alcoholic should be treated on lines already hinted at, that is, by prolonged analysis and personality reconstruction. Though other methods, such as the Stewart and Towns-Lambert, may have immediate results, they must, after all, be considered only as superficial symptom removers or as aids to psychotherapy. Analytic treatment should, for the first three months at least, be carried out in a home or institution set apart for such cases, and it is only after the patient has spent some time in such curative surroundings that he may be, more or less, relied upon to keep away from drink, or other drugs. Of very great importance in all addictions is the question of transference, and the therapist must be prepared to use this instrument to the full, both during the negative phase (already referred to above) and the positive phase. The greatest difficulty encountered in the therapy of addiction is, always, the patient's objection to being looked upon as psychologically sick, and his, largely unconscious, fear lest a tried and loved support be taken away from him in exchange for a more

mature reaction habit to reality with its major obligations and imposing responsibilities.

Where alcoholism complicates schizophrenia, mental deficiency, the manic-depressive psychosis, or syphilis of the central nervous system, the treatment must be, in the main, directed against the greater ill.

MORPHINISM

Much of what has been said under the heading of alcoholism also applies to other drug habits. The choice of drugs remains to a great extent unexplained. Alcohol is easy of access to the majority of men and women, whereas morphine, cocaine, the barbiturates, and others, are the doubtful prerogative of those whose work is connected with the healing and nursing of the sick. But though ease of access may determine the choice of drug, it seldom, if ever, initiates its habitual ingestion in well-integrated and psychologically healthy personalities.

Symptomatology.—The confirmed morphine *habitué* presents, if anything, an even worse spectacle of human dilapidation than the chronic drunkard. There is about him an air of furtiveness, of pointless conceit, of sly deceit, and the sorry vestiges of a once apparently good personality hang about him in the forlorn hope that the masquerade might still pass muster amongst his one-time equals. At first undependable with regard to promises and statements relating to his addiction, he becomes unreliable from all points of view; he is untruthful, tells lies without provocation, steals without remorse, and fabricates unsolicited episodes of the most fantastic kind.

He becomes incapable of earning his own living, much less of looking after the necessities of those dependent upon him. His home life is broken up and he sets forth on a long, lonely, and asocial pilgrimage which, as often as not, ends in the gutter. The description may seem romantic, but that is because the addict, consciously or unconsciously, has dramatized himself in the role of the self-pitying outcast. It is only when the drug is being taken purely for its own sake that his dramatization becomes stark reality.

Furtiveness soon becomes suspiciousness, and may even develop into ideas of persecution. Whilst he is under the influence of the drug he seems happy and even hypomanic or elated, but when this passes off he becomes restless and irritable, he yawns and stretches, complains of vague pains and sensations, and fails to see humour in anything. When thwarted he will not shrink from using physical violence, for which he afterwards shows some regrets. These symptoms undergo intensification when the drug is suddenly withdrawn, and the patient may become hallucinated or even delirious. The hallucinations may involve every one of the sensory fields.

Physically the established addict is pale and thin. He has no appetite, or rather, no taste for food. His physical endurance is much diminished. But there is no evidence of any structural alteration in any of the bodily systems or organs. Signs of skin punctures on arms and legs are always to be found, as well as signs of old superficial needle-abscesses, because the syringe addict becomes grossly careless about his needles, sometimes resorting to his own sputum and urine wherewith to moisten the site of injection.

Certain signs and symptoms will develop on *sudden withdrawal* of the drug. The patient becomes restless and irritable. Nausea, vomiting, abdominal cramps, and diarrhoea set in. His eyes water, he yawns, sneezes, stretches, and sweats. He feels weak and cannot concentrate on anything. At times he may show impulsiveness and even a tendency to hurt either others or himself. His mood is one of depression, of despondency and despair, and nothing, to his mind, will be of any value except an injection of morphine. These symptoms are, obviously, of an emotional kind and almost entirely subjective. It seems as if he were excessively dramatizing his feelings with the object of so impressing those who look after him that the drug shall be forthcoming.

Treatment.—The treatment follows the general lines laid down under the heading of alcoholism. Without an attempt being made at a complete reconstruction of the personality success cannot be expected, and some form of analysis constitutes the treatment of choice.

Apart from this there is the question of withdrawal, and this is best accomplished in a gradual fashion whilst analytical sessions are proceeded with. There is no need to ask the patient how much morphine he is in the habit of taking during the twenty-four hours, as his statements with regard to this are absolutely untrustworthy. He will show very few symptoms with an initial dose of 3 gr. a day. On the third day of his stay in hospital this may be reduced by $\frac{1}{8}$ of a gr. every other day until the morphine content of the ritual syringe reaches nil. The patient is then informed of this fact. Strict honesty on the part of both physician and patient must be adhered to, so that mutual confidence may remain established, always with the proviso that the physician be continually on his guard against trusting the patient's activities outside the walls of the hospital.

Insomnia often constitutes a disturbing symptom during the withdrawal treatment. Rather than impose on an already emotionally disturbed patient the additional burden of lying awake at night with his own depressive-paranoid thoughts it is humane to give him a soporific such as paraldehyde (2 drachms) with, or without, sodium amytal or barbitone.

In case of threatened collapse the administration of caffeine, strychnine, or digitalis, or even morphine, is indicated. Baths are certainly beneficial in allaying restlessness and painful sensations.

The prognosis in addiction is always doubtful, and the only hope of a cure resides in a complete reconstruction of personality. The main obstacle in the way of such a reconstruction is the lack of genuine desire on the part of the patient to exchange his drug-nirvana for the prosaic realities of everyday existence and the realization of unwelcome and deep-seated tendencies.

COCAINISM

It would seem that the cocaine addict is in some measure a greater social failure than the alcohol or morphine addict, and it is certainly true that his personality and intellectual dilapidation reaches lower levels.

Case.—A lawyer aged 55, who was known to be a cocaine addict, was at his most brilliant when under the influence of the drug. Ideas and their expression came with remarkable rapidity and lucidity, and his logic and his wit were the envy of those who did not know his secret. His gestures became expansive, his sight and hearing over-sensitive, his speech and movements speeded up. When the effects wore off his wit turned into sour sarcasm, he became irritable, dissatisfied with all around him, rude, obscene, and profane. He flung out orders right and left, but with neither expectation of, nor interest in, their execution. He would tell fantastic lies and fabricate or exaggerate his achievements. At 60 he entered a mental hospital under certificate and died there two years later.

Hallucinations of a persecutory kind, sometimes terrifying in their content, occur in cases of long standing, as well as delusions of persecution, of infidelity, and of jealousy. The patient may complain of paræsthesias and may develop the belief that there are small animals crawling under his skin.

Case.—A woman of 60, who had been an addict for some ten years, the widow of a medical man, spent the last few years of her life as a certified patient in a mental hospital, where her only occupations consisted of reading her prayers and demonstrating to all and sundry how butterflies hatched under her skin and then flew away. She would point to specks or flies and would actually see these butterflies in them, and expatiate on the brilliancy of their colouring. She was continually rubbing her hands and picking them with her nails.

The treatment of cocaine addiction should be directed along the lines indicated under morphinism.

OTHER ADDICTIONS

Only the better known and long recognized drugs have been mentioned. But addiction may find its object in the most varied drugs, from the barbiturates to aspirin, bismuth, and bicarbonate of soda. Always, the drug taker's choice is secondary to his psychological immaturity and dependency, to his essential narcissism, to his search for an illusory world. Later, the taking of his favourite medicine assumes the appearance of a compulsory ritual, like some forms of masturbation, betting, wandering, collecting, stealing, and some others. An impression of the meaning of addiction may be

gathered by those to whom smoking has become a compulsion rather than a genuine enjoyment. One has met men to whom the ritual filling and lighting of a pipe is the prelude to serious thought or action. On the other hand, there are those to whom the same ritual is the expression of a compulsion fraught with a sense of anxiety, as if it were an instrument of punishment and self-destruction.

A desire for some sort of rhythmic or ritual activity outside the day's work is probably inherent in all human beings to varying extents. Those whose choice falls upon some harmless hobby or indulgence may be accounted both fortunate and psychologically adequate to the business of living.

CHAPTER XV

PSYCHOPATHIC PERSONALITY

By this term we intend to describe a clinical reality whose presence is not often overlooked, whose defining boundaries are vague, and whose place in psychiatric classification still awaits confirmation. Because of its social implications it encroaches largely upon the terrain of the criminologist; because of its psychopathological colouring it has entered the domain of the psychiatrist. Yet, neither prison nor mental hospital is in a position to claim a cure of the condition. Not all criminals, or even recidivists, are psychopaths; not all anti-social behaviour may be called psychopathic; yet every "psychopathic personality", as defined here, is guilty, sooner or later, of repeated anti-social acts deserving of herd censure or legal punishment. Therefore, no diagnosis of psychopathic personality should be made in the absence of punishable or censurable acts episodically carried out. But, as we shall see, such rhythmic evil-doing does not by itself constitute the whole of the clinical entity; it is, however, a *sine qua non*.

A young schizophrenic throws a lighted paraffin rag into his neighbour's sitting room; a woman in her first puerperium attempts to drown her infant; a male paranoiac tries to strangle a young boy; none of these is punishable by law, since the anti-social acts are admitted as having occurred within the context of a delusional or hallucinatory system, and in the absence of insight.

Now, the psychopathic personality is neither deluded nor hallucinated, as this state of things would at once place him in the category of the psychotics. As to the vexed question of insight we may safely say that he takes a certain amount, and on occasions a sufficient amount, of care not to be caught in the act; secondly, that on being questioned he shows

himself an adept at denial and explanatory lies; thirdly, that he is profuse in his apologies after the act and full of good promises not to repeat it. The fact that within a short time he succumbs again does not disprove the existence of insight for the individual misdemeanour; it merely brings into relief the important characteristic of remaining uninfluenced by past experience; he possesses insight but he is unable to evaluate the full social implications of his actions; that is, he lacks foresight.

So far, then, the description of a psychopathic personality bears the following marks: episodic bouts of punishable conduct; plausible, though transparent, lying and denying; absence of well-recognized psychotic indices and inability to learn from experience. These marks suggest that the main pathological feature of the condition is failure on the part of the personality to keep pace with the demands of civilization; that is, psychological immaturity. This is especially clear in the emotional field. Such a patient is peculiarly facile in his emotions; he can be talked out of an apparently established depressive mood with uncommon ease; both his likes and dislikes run into childish moulds and are frequently reversible; where his own immediate ends are concerned he is a complete egophiliac and shows a fine disregard for others, including his own family and his benefactors; he can nevertheless exhibit warmth of feeling and remorse. Yet, all the time, one suspects that those feelings are mere verbal expressions without emotional content.

An emotional fixation invariably takes place before puberty, and usually in early childhood, though no fixed date or age of onset can be assigned. Some writers (Henry) have sought to describe the abnormal traits characterizing the childhood of these individuals. Such lists are, unfortunately, of little value in prognosticating the particular abnormal direction which the future adult is to take; most of the traits enumerated are found in most neurotic types. Amongst these are mentioned the following: enuresis, convulsions, tantrums, night terrors, sleep-walking, strong aversions or strong attractions for certain members of the family, cruelty, timidity, lying, disregard for the rights of others, pronounced

dependence upon, or assertive behaviour towards, the family circle, abnormal sex interest, greed in eating and drinking.

Others (Henderson) describe the condition under the heading of Psychopathic States. In the opinion of the present writer it makes for greater clinical clarity not to refer to the condition as a psychopathic state, as this hints at the existence of occasional outbursts of abnormal behaviour in otherwise normal personalities, which is not the case; these personalities are in fact patently abnormal from an early age onwards. Moreover the term 'psychopathic states' may equally well be applied to all the psychotic reactions, both somatic and endopsychic. The various types of psychopathic personality (or states) listed by Henderson are placed by him under the title of Clinical Manifestations. He includes such types as murderers, suicides, sex offenders, drug addicts, hysterics, neurasthenics, cycloids, schizoids, and creatives. From all this one obtains the disconcerting impression that "nobody shall be missed". Any of the epithets listed may at one time or another become applicable to psychopathic personalities, but this classification according to the most striking symptoms rather tends to obscure their description; they may commit murders, they have been known to indulge in dramatic suicide, many are immature sex offenders, a very large number drink to excess or take drugs; any of the personality types may be found amongst them, especially the hysterical and cycloid types.

As in all attempts at giving a clinical description of syndromes such as this one, we attach value to those factors and symptoms only which have, on the evidence of numerous cases, been found to be invariably present. Many of these have already been mentioned. The patient is known to have begun his erratic behaviour in early childhood; his lies and fabrications have persisted into adult life and, frequently enough, do not possess the slender saving grace of presenting him with a means of escape from a difficult situation; they are so often pointless and gratuitous. What feeble drives exist in him are almost entirely directed towards obtaining immediate gratification of an urgent wish. His plausibility and his superficial likability, his willingness to please, his

inability to do right, his show of remorse ; all these are symptoms to be looked for, and few will be found wanting. No amount of punishment meted out to him, no amount of friendship and help extended to him, no amount of tears or exhortations on the part of his relatives, will have even the flimsiest braking effect on his next outbreak ; like the epileptic and the inveterate masturbator, he is powerless in the face of the approaching attack.

The emotional value attaching to his anti-social acts proves too strong to be overridden by his intelligence, which is not often below normal and sometimes well above it, thus rendering his judgment defective. His irresponsibility and his lack of perseverance make his life one long chapter of lost jobs, police court proceedings, simulation of physical diseases, hospitalizations, and strange misadventures. Because of the early fixation of his libido his love-life presents a tawdry, miserable spectacle.

Case.—A married man of 30 was referred to the psychiatrist by the Probation Officer when, for the third time, he had come before the Court on a charge of stealing money from church offertory boxes. On this occasion the amount was less than three shillings. Moreover, the offence had been committed on the very day that he had been discharged from prison for a similar offence, coupled with stealing money from public houses. He lost his father at the age of 16, and his mother in the following year, after which he was relegated to the fond care of six older sisters, ranging in age from 18 to 25, and all living at home on the ample inheritance left by the parents. A year after his mother's death he was brought home by the police in a drunken state. It appears that he had gone to the house of an elderly woman friend of his mother's, walked into her bedroom, and there proceeded to pass water on her bed. Whilst not wishing to bring a charge against him she felt compelled to send for the police in order to be rid of him. He began to drink heavily, but soon, finding his monetary resources cut down by his sisters, he now began to pilfer money from public houses—sometimes in full view of other customers. He got married in great style at a well-known church and lived—apparently happily and within the law—for exactly five weeks. His wife then left him because of his unpredictable behaviour : he would come home time and again in a state of drunkenness and with his pockets bulging with small change, which she, rightly, suspected had been stolen. He could not hold any job. His intelligence was distinctly above the average. His charm, good looks, and fair education

misled all those who met him for the first time into believing his fantastic tales of heroism and endurance in a war in which he had never, even remotely, participated. On the strength of such tales he managed to get himself filled with beer and, quite often, his pocket with money. Failing this he would steal. Often he had come home in the small hours of the morning having slept most of the night in a field. His explanations were ludicrous though highly imaginative: perhaps he had helped a detective arrest a man, or driven a disabled motorist's car a hundred miles into the country, or been asked to sit up with a dying woman, and so on. Although he appeared to realize that he was fabricating, he yet expected one to believe him; the next day he denied having given the above excuses and made out that everyone was trying out a joke on him. On three occasions he simulated abdominal trouble, and had two useless laparotomies to his name. He was a skilful swimmer, golfer, and cricketer, besides being a good raconteur. His behaviour in respectable society was beyond reproach; women had never figured in his life; he had never been known to use unclean or profane language. But the most striking characteristic of all was the contrast between his utterances and the emotions behind them: he was able to express the whole gamut of feelings belonging to the normal individual and yet he remained, clearly, unaffected by them and devoid of their inner warmth, as if a gulf existed for him between intelligence and affect which could never be bridged.

Very little has been added to our knowledge of the aetiology of the condition over the past ten years or more. Some workers have found a reduction in blood-sugar, birth injury, endocrine dysfunction, abnormal E.E.G's., and heredity influence. But so far nothing certain can be said of any of these factors and we are still reduced to giving descriptions and trusting to preventive detention.

On the somatic side the psychopathic personality presents at some time or another problems in diagnosis. Like the hysteric he is inclined to enact his conflicts not only in social life but also by means of physical symptoms. Fits of an epileptic or epileptoid nature occur particularly frequently. Asthmatic attacks and generalized urticaria have been noted. The gastro-intestinal tract offers an especially rich soil for his choice of symptoms, and an instability of his autonomies has been suggested. This instability would be the result of a release of hypothalamus control by the cortex under the

influence of emotion. Amongst the symptoms mention should be made of constipation, hyperacidity, gastric bleeding, colitis, peptic ulcer, œsophageal spasm, enuresis, and the simulation of all types of acute abdominal catastrophies.

It will therefore be seen that the very multiplicity of both psychic and somatic symptoms has, understandably enough, made the psychopathic personality the dumping ground of all those psychiatric conditions and reactions which, for the time being, have eluded accurate classification and diagnosis.

CHAPTER XVI

PSYCHOTIC REACTION AND SYPHILIS

Aetiology.—The relationship between syphilis and psychotic reactions may be one of direct cause and effect, of concomitance, or of psychogenic determinance.

Viewing the problem under the two main headings of congenital and acquired syphilis, we find in *congenital syphilis* such psychiatric clinical entities as syphilitic amentia, juvenile general paresis, and a psychosis associated with sense deprivation of syphilitic origin. As a result of *acquired syphilis* any of the following may occur, the particular type of psychosis depending to a large extent on whether the pathological basis is one of meningovascular or parenchymatous syphilis. The former may be associated with a concomitant but unconnected psychosis, or with a psychosis directly due to the cerebral involvement, or with a psychosis which is psychogenically related as to type or occurrence to the disease process. In the case of the parenchymatous variety the clinical pattern is either a tabetic or a paretic one. Tabes may be associated with a concomitant but independent psychosis, or with a psychosis which is psychogenically related as to form or occurrence to the tabes. General paresis, or tabo-paresis, presents a variable psychiatric syndrome. Thus, there may be a 'neurasthenic' state, or a simple progressive dementia; or an acute confusional or delirious state; or an affective psychosis, either in the direction of exaltation or depression; or, finally, a persecutory delusional state.

Of persons infected with the *Spirochæta pallida* only 10 per cent develop neurosyphilis. This observation has given rise to the hypothesis that a special strain or variant of the spirochæte is responsible for the neurological symptoms; but although the supposition is supported by some evidence in its favour it has not been generally accepted as satisfactorily

proven. On the other hand, severe primary and secondary reactions have frequently been found to ensure the victim against neurosyphilis in later life, the infective process having, as it were, spent its progressive momentum in the first stages of its onslaught. Indeed, the theory that an initial strong reaction to the infection may have increased the patient's natural resistive powers to the organism has been put forward in criticism of the modern method of treating the first symptoms of this disease with vigour, thereby tending to diminish the patient's resistive powers.

We must not lose sight of the possibility that some nervous systems may be more susceptible to the syphilitic virus than others. Inherited mental instability, also, cannot lightly be brushed aside as a predisposing factor. The particular neurological lesions by themselves are certainly not sufficient to account for such severe mental symptoms as are found, say, in general paresis.

CEREBRAL SYPHILIS

Symptomatology.—The symptoms of meningovascular syphilis usually become manifest within five years of infection, though they may appear very much later. Such symptoms may be slight and only discovered on routine examination, as in the latent form; or they may be fully declared, as in cerebral leptomeningitis. The latent form may show inequality and irregularity of the pupils, with a slow light-reaction, sometimes with an Argyll-Robertson reaction, inequality of deep reflexes, and the Babinski response on one or both sides.

In cerebral leptomeningitis the symptoms may be definitely focal or diffuse. In the latter case the patient complains of headaches of varying degrees of severity, worse at night, and sometimes combined with sensitivity of the scalp. This combination of severe headache and a tender scalp should always suggest the necessity for further physical investigation, especially of the blood and cerebrospinal fluid, as also of the pupils. These tests are the more important in view of the ease with which headaches can be placed in the category of the neuroses.

Amongst psychic changes a falling off in general efficiency is one of the first and most insidious. The patient's memory begins to fail and his intellectual capacity is diminished. His memory failure may become as profound as that seen in Korsakow's psychosis, and be associated with confabulations. On the other hand, his judgment may remain sound and he may show insight into, and a realization of, his state, with fair personality retention. At the same time euphoria is quite frequent and he may express grandiose ideas.

The acute form of cerebral syphilis presents the usual features of the acute organic reaction type, that is, of an acute delirium, with fearful hallucinations, disorientation, and loss of recent memory.

Severe forms are marked by apathy, profound mental deterioration, and even dementia. Stupor may supervene in cases where intracranial pressure is raised. Aphasia and loss of sphincter control are common.

The *physical signs* of cerebral leptomeningitis may include fits of the Jackson type, without loss of consciousness, or fits of the generalized type with loss of consciousness. They will almost certainly include reflex iridoplegia. Third-nerve paralysis is frequent, with paresis of the sixth, seventh, and fifth cranial nerves next in frequency. Paresis and loss of co-ordination of the limbs, on one or both sides, are often present. The functions of the hypothalamic nuclei may suffer damage, and in these cases we may meet with such disturbances as diabetes insipidus, narcolepsy, glycosuria of the transient type, and obesity.

The *cerebrospinal fluid* in active meningovascular syphilis shows an excess of mononuclear cells, sometimes 100 per c.mm. and more. The protein content, which in the normal fluid averages 0.02 per cent about equally divided between albumin and globulin, shows an increase up to 0.05 or even 0.15 per cent, with an increase of globulin over albumin. The W.R. is positive in nearly all cases. The Lange gold curve is of the paretic (5 5 4 2 2 1 0 0 0) or luetic (1 3 5 5 4 2 1 0 0) order, and the benzoin test gives a positive reaction.

Diagnosis.—This will have suggested itself to the psychiatrist in the first place on the strength of the persistent headaches

and the presence of cranial-nerve palsies. A history of syphilitic infection may be obtained ; a negative history should be ignored. In all cases where pupillary changes are found a serological and blood analysis must be made, and only when this proves incontrovertibly negative can we proceed to think of such other possible conditions as cerebral arteriosclerosis or one of the psychoses or neuroses.

Pathology.—Essentially this is one of vascular and perivascular inflammation, the former consisting of a proliferative thickening of the vessel wall leading to endarteritis obliterans. This in turn brings about necrosis or caseation amongst the tissues fed by the diseased vessels. The perivascular spaces are infiltrated with plasma cells, lymphocytes, and fibroblasts. Thus gummata are formed—granulomatous patches surrounded by fibrotic tissue.

Prognosis.—The prognosis depends on early diagnosis and prompt intensive treatment. As soon as marked mental symptoms have set in we are in the presence of cerebral changes which are largely irreversible, and the intellectual deficit, as well as the affective instability, must then be dealt with along general psychiatric lines.

Treatment.—The treatment of cerebral syphilis aims at the removal of physical signs and symptoms, and the arrest of the disease process. The details of management are fully set out in text-books on neurology. Briefly, it involves the administration of such drugs as mercury, bismuth, and the arsenobenzene group, given in combination, whilst a watch is kept on the W.R. of blood and cerebrospinal fluid, both during, and for three to five years after, the treatment.

Full recovery may be expected in about a third of the cases treated ; an appreciable number show much improvement ; an unfortunately large number die, mostly amongst cases in which middle-aged arteriosclerotic changes have set in.

DEMENTIA PARALYTICA OR GENERAL PARESIS

History.—During the past 150 years the historical vicissitudes of this disease have touched upon three main aspects. In the first place there was the recognition of the disease as a clinical entity *sui generis*. Secondly, the

observation that it occurred in a number of people who had been known to have suffered from a syphilitic infection was made and corroborated. Thirdly, the direct causal relationship between the *Spirochaeta pallida* and dementia paralytica became accepted. Lastly, as has already been mentioned, we are still left with the question as to why only a small number of infected people develop the disease.

It was first described by Haslam, an English physician, in 1798, but although during the succeeding century its position as a clinical whole had become firmly established, it was not until the end of the nineteenth century that syphilis and general paralysis of the insane began to be spoken of in conjunction with each other. Thus, around 1867 some German psychiatrists considered it to be a very improbable assumption "that the two might be related as cause and effect". They held that the disease was never met with in individuals who were mentally healthy; that it depended upon a pathological state of the brain so severe as to number profound insanity amongst its symptoms; and that in the great majority of cases the psychic derangement preceded the paralysis. Twenty years later the possibility of a syphilitic causation is still not mentioned in English books on psychiatry. Indeed, in 1889 Bevan Lewis does not even refer to syphilis in his text-book on psychiatry. Seven years after this date Clouston discredits the continental view—accepted by Drummond in the *British Medical Journal* of 1893—that syphilis might be the real cause of the disease. He held that mental shock and a sanguine temperament would of themselves bring it about. He mentions syphilitic insanity in a separate chapter, but fails to link up his various descriptive forms with general paralysis of the insane.

By the beginning of this century Kraft-Ebing had already styled the disease the "product of civilization and syphilization", but Berkley in 1901 was still telling his readers that "a considerable proportion of cases of paresis cannot be laid at the door of an antecedent syphilization". He stressed such aetiological factors as alcohol, mental over-exertion, trauma of the brain, and heredity. And five years later Kraepelin expressed the view that syphilis as a cause of paresis

should be discountenanced on the grounds that anti-syphilitic treatment (mercury) did not influence its course. With Möbius he thought that it might more properly be called a "metasyphilis", or an after-disease of syphilis.

It was in 1911 that Noguchi discovered the spirochæte in the brains of general paretics, and from this time onwards the causal nexus between the two diseases has been universally accepted.

Aetiology.—Much still remains to be known about general paresis, more particularly from the point of view of its aetiology. It is certain that the spirochæte invades the bodies of the neurones, that the latter degenerate, and that this change is an irreversible one. But no theory has so far been put forward which adequately explains the difference in symptomatology between cerebral meningovascular syphilis and general paresis, nor why syphilis selects the one system and not the other in any given case. Neither do we know why the male nervous system should be preferred by the spirochæte to the female in the astounding proportions of four to one; nor can we explain why rather less than half the neuro-syphilitics suffer from this disease.

Observers of the past century brought forward certain aetiological surmises which bordered on the fanciful. On the other hand, modern neurologists, ready to look upon mental disease with as 'organic' a bias as possible, are content to brush aside all psychic material as "difficult to assess". It is not until psychiatrists have explored the pre-morbid personality of the general paretic that we shall be in a position either to reject or accept this part of the disease totality as a telling element in its aetiology. The psychiatric features of the two types of syphilitic infection of the central nervous system are different, and it is at least plausible to assume that the reason for this difference lies in the difference of the anatomical structures affected. Yet we are not justified in ignoring the possibility of psychic elements entering into the aetiology, even of such a disease as this. To speak of "constitutional differences" in order to explain the variation in distribution of spirochaetes between meningovascular and paretic syphilis is now no longer scientific, but there may, on the other hand, be ultra-chemical or immunological differences.

Probably, then, there is no neurotropic virus, but rather a susceptibility of some individuals to syphilis. That is, it only develops in those who might from any other exciting cause have developed a dementia. Perhaps they possess a defective type of cortex. It may be the expression of an anaphylactic reaction in tissues rendered hypersensitive during the previous stages of the disease. Why only 2 per cent of all syphilitics are thus affected, and why there should be such a long period of normality between infection and parietic manifestations, we cannot say.

Symptomatology.—From the clinical point of view the disease is conveniently described as presenting three stages in its evolution. This evolution, however, may frequently be punctuated by remissions, and the whole may show blurring and overlapping of stages. At the risk of uttering a platitude we must state that the important point is not to miss the presence of such a calamitous disease, especially in its early stages, with the ultimate aim of eliminating from our wards and text-books the picture of the faltering, vegetating, parietic dement altogether. A man (or woman) aged between 30 and 50 who has been suspected by his doctor and relatives to be suffering from "neurasthenic" symptoms should have his pupils carefully investigated. If any abnormality either as to size or reaction, or both, is found, no time must be lost in applying the usual tests for the presence of syphilis both to his blood and to his cerebrospinal fluid.

It must be noted that the disease creeps in unheralded, and that on this account its early stages are frequently missed. Most usually changes develop in the personality as this is known to the patient's friends and relatives. His behaviour becomes coarse and unpredictable, and he is liable to lapse ethically, morally, and æsthetically. An otherwise mild and devoted father begins to thrash his daughter on the slightest provocation; a much trusted and respected solicitor is discovered spending his clients' money on prostitutes of a low type; an ex-army officer institutes legal proceedings against his mother on the imaginary charge that she is squandering his deceased father's legacy. In all three cases the behaviour is so entirely out of keeping with the usual personality and

character patterns that grave suspicion should be entertained as to such persons' mental and physical integrity.

Apart from these insidious changes there occur memory lapses, at first relating to recent events, but gradually invading material learnt earlier. Irritability and quickness of temper constitute invariable symptoms in the first stages. Also, the patient becomes moody, tearful, depressed, for he may vaguely realize that he is 'different', that his efficiency is failing him, that he is being threatened by an impending ego-dissolution. But more usually the patient remains unaware of the change and blissfully proceeds towards his inevitable doom. His judgment becomes utterly unreliable and his statements lack foundation in fact. He is mentally tired and has short periods of slight disorientation for time and place.

With the growing deterioration of memory and the increasing lack of time-realization he becomes less and less aware of his condition and more ready to rationalize his queer behaviour on a most trivial basis. Unless he is euphoric and grandiose in his mood and utterances, he tries to explain away his depressions by expressing nihilistic delusions of the most impossible and fantastic kind. One parietic believed that his brain substance was slowly running out through his œsophagus and poisoning his system. Another thought that his mother had injected gonorrhœa into his blood-stream and that he was rotting away from the umbilicus outwards. This patient committed suicide by plunging a bread knife into his abdomen.

Slowly he drifts into a state of facile moods and easy indolence, with an occasional epileptiform fit or apoplectiform seizure which leaves him with such transitory disabilities as a dysphasia, a hemianopia, a hemi- or mono-plegia, dysarthric symptoms, or muscle-clonus movements. By this time the patient has ceased to care about himself. He has to be fed, kept clean, and in all ways attended to.

The physical signs of dementia paralytica must be taken in conjunction with the above description of its mental aspect before a diagnosis can be made with safety in the earlier stages, a diagnosis which must become decisive and unequivocal with positive serological findings, the formula for which is

distinctive. At the same time the condition should never be diagnosed on serological findings alone, but always on the data of the whole clinical configuration.

Foremost amongst the physical signs are the loss of the neck-pupil reflex, loss of the consensual light reflex, and the presence of the true Argyll-Robertson pupil, the three phenomena often appearing in this order of time. Inequality of the pupils and irregularity of their outline may be early signs. Where instead of loss only of the light reflex there is also loss of the pupil accommodation reflex we may suspect the admixture of tabes, and if the ankle-jerk is absent as well, taboparesis can be diagnosed with certainty. In the latter case, too, there is frequently optic atrophy.

The facial appearance of the paretic patient gives one the impression that he is much younger than his years, rather as if life's experiences had been effaced and all care and tribulation had ceased to influence the personality.

It has been stated that where general paresis occurs during the senile period the luetic inflammatory process may have an inhibitory influence upon the neuropathological changes of senility, as revealed by post-mortem investigations.

Both speech and handwriting are of the drunken-man type, with slurring or missing out of syllables, blurred or even unintelligible words, and much tremor and grimacing of mouth muscles. Tremor also affects the tongue and the outstretched hands. Except in the tabetic form the deep reflexes are exaggerated. Sphincters fail to respond normally. Episodes of fleeting loss of consciousness occur. Finally, inco-ordination develops, affecting both upper and lower limbs and rendering the victim helpless and bedridden.

The cerebrospinal fluid presents a definite paretic formula, a combination of a positive reaction of syphilis and a parenchymatous colloidal gold curve based on the presence of an abnormal pseudoglobulin-like substance. This gold curve is of the nature of 5 5 5 4 3 1 1 0 0 0 or even 5 5 5 5 5 5 5 4 4 4. The W.R. is positive in all cases and in the blood it is positive in from 90 to 100 per cent of cases. The protein content lies between 0.05 and 0.10 per cent, and the globulin content of the fluid may equal one-third of the protein content.

Case.—A man of 55, a self-made well-to-do manufacturer, was seen by the psychiatrist at the request of his family who believed him to be suffering from depression. The history ran as follows: For the past six months his wife and children had noticed that he had become bad-tempered and easily put out emotionally. Although he had not actually used physical violence they had sufficient cause to be afraid of his threats, especially as of late he had taken to using a walking stick, both in and out of doors. He did not feel well enough to see to his business as he had become forgetful, and realized this fully. He was losing weight rapidly. He had given up smoking and drinking, both of which he had all his life indulged in rather more than moderately. He had also begun to use bad language on the flimsiest of pretexts. His attitude in financial matters had utterly changed, and his wife was forced to borrow money from the business in order to meet household expenses. The general consensus of opinion upon his pre-morbid personality could be epitomized in a few words: boundless generosity, joviality, an equable temper, kindness. He had, consequently, been popular and well-beloved.

When seen for the first time he looked ill and depressed, and began to weep like a child. There was no retardation. The outstretched hands exhibited a fine tremor, and so did the perioral muscles and the tongue. His pupils were small and unequal in size. The deep reflexes in the lower limbs were exaggerated. His wife was informed of the psychiatrist's suspicions.

For many weeks he held out against all advice to enter a nursing home, until one day he was discovered by his eldest son in the act of trying to hang himself from an attic beam. He was removed to a Mental Home, where the usual tests were carried out and the suspected diagnosis was confirmed. The C.S.F. showed a gold curve of 5 5 5 5 4 3 1 0 0 0. The W.R. was positive both in the blood and C.S.F. He died suddenly a month after admission, of fatty degeneration of the heart (as proved post mortem).

Pathology.—There is shrinking of the brain, while the convolutions are well marked and the usual compensating hydrocephalus is found. There is thickening of the meninges and the ventricle walls present a granular appearance due to ependymitis.

Microscopically the meninges show infiltration with plasma cells and lymphocytes; the cortical vessels are surrounded by similar cells which fill up the perivascular spaces and especially those around the small vessels and the capillaries; the cortical neurones are found in varying stages of degeneration which affects mainly the small and medium-sized pyramidal

and the molecular layer cells; the fibres in the cortex are demyelinated, and more especially the tangential fibres. A reactive gliosis is found, with the formation of fibroglia and of giant glial cells and an overgrowth of microglia. In about half the cases the spirochæte is demonstrable in the cortical neurones.

These pathological changes affect mainly the frontal and temporal lobes, the cerebellar cortex and basal ganglia being less seriously involved. As a rule a syphilitic aortitis is present. An excess of iron can be demonstrated both in the perivascular spaces and in the microglia.

Psychopathology.—Where, as in this disease, such gross pathological changes are found, changes which stand definitely related to the terminal dementia, it is a very difficult task to elucidate the soma-psyche theory on any psychological basis. Psycho-analysts propound the theory that every bodily organ may be regarded as the structuralized end-product of an instinct, and that organic diseases have their special points of attack upon psychological systems. Theoretically, therefore, every organic disorder can be defined on the basis of instinct psychology.

Certain psychic changes have been noted in dementia paralytica, of which mania, depression, and lack of attention are outstanding. The depressive phase may be linked up with the paretic's knowledge of his syphilitic infection, a knowledge which he carries with him and which bears the affect of a profound sense of guilt. His disease, in fact, stands to his sexual lapse as a castration punishment. During the manic, grandiose phase, this knowledge undergoes negation and annulment.

Gregor and Foerster have underlined the lack of attention in paretics. This plays an important role in paretic memory disorders. The patient fails to note the complex structure of things near by. Now the perception of reality belongs to the non-personal part of the ego-ideal, and it is precisely this part which sustains injury here. This part is related to consciousness, perceptivity, and overt behaviour, and is to be distinguished from the experiencing ego, from that which we call the personality. Perhaps perceptivity is something organically and phylogenetically determined. His grandiose phase also shows this inadequate perception of his environment

and his profound lack of critical judgment. He is capable of ignoring anything painful, since reality itself has no great significance for him—he is naïvely content and satisfied with himself, his world around him having become primitive, oversimplified, and not worthy of intensive emotion.

Treatment.—Experience during the past few years has shown that treatment by the artificial induction of hyperpyrexia gives the best results. It may be preceded or followed by a course of intravenous tryparsamide, though some workers consider this adjunct unnecessary, and some hold it to be even undesirable.

One method extensively used and tried over a period of some years consists in the artificial induction of malaria in the parietic patient. It is not known how precisely the treatment acts, and various theories have been put forward to explain its mechanism. But as none of these has so far satisfied all requirements it is best to await further work on this subject, and to place, provisionally, the pyrexia itself in the forefront as the curative agent, without however presuming to theorize upon the manner of its action. It must be added that a marked decrease in the hospital death-rate and a marked increase in the discharged-improved rate has been noted with diathermically induced pyrexia, combined with specific chemotherapy. It is also interesting to learn that of recent years the rate of admissions of parietics in the final stages of the disease has decreased by some 30 per cent, and that we do not yet know (Freeman) the agent or agents responsible for this.

The parasite of benign tertiary malaria is usually employed, and the parietic patient is inoculated by the bite of an infected mosquito, or by the injection subcutaneously of from 1 to 5 c.c. of the blood of a malarial patient. An average incubation period of ten days may be expected, when the patient will begin to have rigors. Of these he may be allowed from 10 to 12, after which termination of the malaria should be begun by the administration of 5 gr. of quinine bisulphate twice a day for two weeks. In some cases of threatened heart failure it is well to give digitalis prophylactically from the beginning. After the malarial treatment a course of tryparsamide should be administered in weekly doses of 2 gr.

for 12 weeks. On recovery or on remission the patient should be placed in the care of the psychotherapist—a part of the total treatment frequently neglected.

The indications for terminating the malarial attack are collapse, persistent vomiting, cyanosis, great restlessness, seizures, profound jaundice, and the presence of more than one parasite in each of twenty-five fields. Early treatment gives the best results. The withholding of malarial treatment is equivalent to condemning to death within four years of admission some 90 per cent of paretics.

We are still in the dark as to the quantitative aspect of remissions, which is of obvious import when we try to assess social behaviour. Using the Rorschach, Babcock, and Szondi tests not much improvement either on remission or after treatment can be demonstrated. The psycho-analytic implications of general paresis have been reviewed by Orlando (1943), as also quantitative estimations of whatever psychic improvement may be said to have occurred after treatment.

TABES DORSALIS

When this disease is associated with general paresis the mental abnormalities are those of the latter disease. But unmixed clinical tabes may also be linked with a psychotic reaction, the relationship between the two being either psychogenic, or the psychosis may be merely concomitant. The psychosis may therefore be a non-syphilitic one, and in such cases we shall expect to find but slight changes, or no changes at all, in the cerebrospinal fluid, no dementia proper, and none of the characteristic symptoms of paresis or tabo-paresis.

The more common psychotic pictures are depression, hallucinatory episodes, periods of confusion, and paraphrenic states. Such reactions may well be due to the patient's realization of his dread disease, and to his misinterpretation (along the lines of his own complexes) of altered sensations and paræsthesiæ.

It is assumed in this work that no tabetic psychosis pure and simple can usefully be isolated, and that to attempt to do so is a retrograde step in psychiatric study.

CHAPTER XVII

PSYCHIATRIC ASPECTS OF CERTAIN OTHER
ORGANIC DISEASES AND INJURIES

INFECTIVE-EXHAUSTIVE STATES

CERTAIN psychotic reactions are known to occur in conjunction with toxic conditions and with states of prolonged physical strain, the psychoses being of various types, such as deliria, paranoid states, hallucinoses, stupor, depression, apathy, Korsakow's syndrome, and manic states. No correlation exists between the type of infection and the psychosis, and it must be assumed that it is the personality that colours a psychosis precipitated by the pathological state of the body. In these cases the psychic life is a reflection of organic processes, and the latter are being expressed during the psychosis by means of archaic symbols. We must postulate the existence of two factors in the onset: an individual susceptibility to a particular toxin, and a latent tendency to psychosis, and unless these two elements are present there can be no psychotic reaction.

Whilst a *delirium* is the most frequent and may be said to be a typical toxæmic-psychotic state, it is clear that an underlying psychosis is often unmasked and that this psychosis may answer the description, from the clinical point of view, of any of the major psychotic syndromes.

Two kinds of toxin are usually considered in connexion with infective-exhaustive states. Amongst the first, or exogenous, toxins are alcohol, other drugs, metals, gases. The second type, the endogenous, toxæmias include almost any infectious disease, certain metabolic disorders, certain glandular dysfunctions, severe hæmorrhage, starvation, excessive exertion, some wasting diseases, the puerperium, pregnancy, influenza, cardiac decompensation, vascular and

renal disease, and some other organic diseases. In some psychotic reactions, showing all the clinical appearances of an organic reaction type, no organic cause can be discovered. Let it be added here that emotional shock may precipitate a psychosis in the same way as does a toxæmia, and unmask a latent psychosis.

The deliria are often described as pre-febrile, febrile, and post-febrile. The first is found in typhus, malaria, influenza, and acute chorea, and varies between mild confusion and delirious excitement. During the fever the delirium is frequently proportionate to the rise in temperature, and varies from anxiety dreams to confusion, hallucinations, extreme disorientation, proceeding to subsultus tendinum and coma. The post-febrile deliria resemble the last described in most respects. To attempt to describe any individual delirium in such terms is not, however, very helpful.

In all deliria we find hallucinatory fancies in a dream-like condition, and disorientation in one or all spheres. Apart from clouding of consciousness there are usually hypermotility, incoherence, and emotional lability. Confusion constitutes the main symptom, as it does with other organic and cerebral disease—a suspension of the higher psychic functions. Insomnia is the rule. The patient lives in a dream world in which anxiety and fear play predominant parts. There is profound bewilderment and incoherence, with illusions and false recognitions. Hallucinations alternate with clearness.

Amongst the physical findings of toxæmia there is usually a rise of temperature, though this is not invariably the case. Leucocytosis is frequent, as well as a steady loss of weight and an easy exhaustibility. The skin is dry and may exhibit septic eruptions; the nails are brittle and the hair falls out. Instead of a rise of temperature there may be a fall, and the patient be cyanosed. Arrhythmia is frequently present, as also acidosis and acetonuria. Amongst neurological signs we find tremors, ataxia, exaggerated deep reflexes, and slurring speech.

The *morbid anatomy* is indefinite and variable as far as the brain is concerned. Changes such as œdema of the pia,

vascular engorgement, and chromatolysis of cortical cells have been noted.

The *prognosis* is good on the whole. It must largely depend on the type of organic disease present. Some patients recover physically but not mentally, the abnormal mental residues being a permanent mild confusional state and impairment of memory.

The *treatment* of an infective-exhaustive psychosis must be in the first place directed against the physical disease, and this implies a complete and thorough investigation. Amongst clinical tests will appear blood, urine, and cerebrospinal fluid examinations, as well as a search for a possible focus of infection. Relatives should be questioned as to the patient's immediate history.

Nursing will take up a large part of the treatment. The patient's mouth should be kept clean, as also his nose and pharynx. Nursing must be carried out whenever possible in the open air. Prolonged baths are beneficial, and enemata must be administered with regularity and discretion. Potassium citrate in 5-gr. doses every four hours will combat acidosis; sodium chloride in a solution of 0.85 per cent may be administered per rectum. Plenty of fluids either by tube feed or per rectum are a necessity. If tube feeding is to be instituted care must be taken that the patient receives a sufficiency of carbohydrates. Digitalis, or some other cardiac stimulant, is often called for. During convalescence it becomes necessary to introduce occupation therapy.

The treatment of toxic conditions by the exhibition of some such preparation as M & B 693, or of penicillin where applicable, may well form an integral part of the management of these cases, due regard being paid to any contra-indicating circumstances that might be present.

HEAD INJURIES

Apart from a not rare schizophrenic outbreak, and a somewhat more frequent Korsakow syndrome, true psychotic reaction types are not usual after head injuries. On the other hand, intellectual and personality changes of various grades

of severity and duration are uncommonly frequent. There is no psychosis *sui generis* after head injury—that is to say, head injury causes no distinctive psychosis. Amongst conditions which may have lain dormant until the trauma occurred we should mention syphilis, alcoholism, mental deficiency, vascular degeneration, and certain borderline states. From the medico-legal standpoint any condition which, but for the injury sustained, would have presumably remained dormant is to be regarded as having been caused by the injury.

There is at present a lack of uniformity in the description of possible post-traumatic syndromes. Some writers have described two distinct types. The first is known as post-traumatic concussion, and is characterized in its initial stages by fever, delirium, periods of clouding, and restlessness; later, by headache, vertigo, impairment of memory, fatigability, lack of concentration, and an increased sensitiveness to heat and to alcohol. The second is known as post-traumatic psychoneurotic state, occurring, not at the time of the injury, but some time later. Here all previous personality inadequacies are underlined and made more obvious; the patient has become emotional, dramatic in his behaviour; he is tense, depressed, doubtful of ever recovering, and complains of headache and vertigo.

Other writers have described, besides the state of concussion already mentioned, certain syndromes, amongst which figures a pseudo-Korsakow state with disorientation, loss of memory, aphasia, and confabulation; or a state of Parkinsonism, or an epileptic state; also mental deterioration; and a condition of vasomotor instability, fatigability, fears of all kinds, hypochondriasis, truculence, and emotionalism.

Yet other workers divide traumatic reactions into deliria, amnesic states, various grades of mental deterioration, and a state known as "post-traumatic constitution", which consists of an easy reaction to alcohol, vasomotor instability, irascibility, paranoid episodes, and epileptoid attacks. Violent rage reactions are sometimes met with.

In all cases of post-traumatic symptoms, and especially where the mental abnormality persists for any length of time,

the need for investigating the pre-traumatic personality becomes imperative. The person must, here as always, be considered as a whole. Amongst symptoms which tend to persist are vague headaches and emotional instability, both suggestive also of psychoneurotic states. In many such cases it has been found that the previous personality showed instability and that situational factors had produced or aggravated the psychoneurotic symptoms; amongst such factors occupational difficulties and problems of litigation and compensation were the more telling amongst a large number of accidents examined.

The commonest symptoms in convalescence, both in previously normal and in previously neurotic patients, are anxiety states, headaches, and dizziness, and they constitute the most important elements in the production of occupational disability and its threat of financial insolvency, which in turn fosters further anxiety. On the whole, where evidence of brain injury exists, there we may expect to find few psychoneurotic signs. Conversely, post-traumatic syndromes without signs of brain damage resemble the psychoneuroses—as if there existed an antagonism between presence of brain damage and psychoneurosis (Ruersch).

Slight personality and memory disorders may persist for many months after a head injury, and though they cannot be assessed by our present methods of testing, they are nevertheless observable by the patient's relatives and friends and may constitute an appreciable handicap to his successful rehabilitation, both from the social and the occupational point of view.

We do not yet possess any satisfactory theory to explain the neuropathology of concussion, though several hypotheses have been put forward from time to time. Thus, according to Kocher, loss of consciousness is due to sudden cerebral anæmia. Duret thought that it was caused by sudden distension of the third and fourth ventricles as a result of the cerebrospinal fluid being forced out of the lateral ventricles towards the foramen magnum. Others have emphasized the mechanical aspect, such as compression, vibration, deformation, stretching.

INTRACRANIAL TUMOUR

Confusion and disorientation occur as the result of acute or subacute rises in intracranial pressure. The prolonged presence of increased pressure within the skull may produce symptoms, though more usually we may expect a progressive dementia to develop, with loss of affective responses, personality dilapidation, and also hallucinations. We sometimes meet with affective explosions, or profound depression. Of the milder symptoms associated with increased intracranial pressure the more usual are impairment of recent memory, loss of interest with consequent lack of attention, a general falling off of intellectual powers, irritability, fatiguability, and a progressive dulling of emotional response.

Attempts have been made to impose a pattern of localization upon psychiatric symptoms relative to brain pathology. As yet such attempts are not convincing. To place apraxias and aphasias, hemianopias, and the grasp reflex amongst psychiatric phenomena (Henry) is to confuse psychiatric and neurological issues.

Frontal and callosal symptoms are listed as consisting of euphoria, crude joking, confabulation, organized auditory hallucinations, and impairment of recent memory; other phenomena include the grasp reflex, incontinence, and dysphasias.

Temporal tumours, when in the vicinity of the uncinate gyrus, are sometimes associated with dream states and olfactory and gustatory hallucinations; added to this there may be dysphasia if the tumour involves the left side. Following the aura there may occur Jacksonian fits.

Pathological states of the basal ganglia may give rise to somnolence, disorientation, memory defects, and even stupor.

The frontal and callosal tumours are therefore suggestive of organic dementia and general paresis, whilst the basal ganglia symptoms are reminiscent of catatonic states.

Other symptoms met with in frontal tumours concern changes in the personality of the patient. The active and ambitious person becomes indolent and apathetic; the anxious and worrying person becomes self-satisfied and fatuous. Yet

amidst all our speculations there comes the rather chastening thought that a complete right-sided lobectomy in a right-handed man who had shown no symptoms of a psychiatric kind before his operation, resulted in no change whatever in his intelligence, his personality, or in any other sphere. Only one case of double lobectomy on a human being has been recorded, and the post-operative result was in the main a profound loss of emotional control and an appreciable intellectual impairment.

It is clear, therefore, that brain localization of psychic functions has so far received very little help from the study of intracranial tumours and their surgical removal. The operation of frontal leucotomy, which is now being performed fairly extensively, may yield more data upon this subject in time to come—given a sufficient number of subjects.

Finally, it must be pointed out, first, that no diagnosis of cerebral tumour can be arrived at via psychiatric symptomatology; secondly, that no psychiatric syndrome should be pronounced upon without a neurological examination.

DISEASES OF THE ENDOCRINE SYSTEM

Both psychoneuroses and psychoses may co-exist with endocrinopathy, and the latter may precipitate or facilitate either state. Anxiety states, manic-depressive, paranoid, and delusional states will come to mind; a careful evaluation of the problem of cause and effect, however, is most essential, and a too hasty and easy tendency to ascribe the origin of obscure psychic states to endocrine disease must be checked.

Hypothyroidism.—This is associated in the adult with a slowing of thought processes and forgetfulness. There may be a general feeling of depression, a lack of perseverance, and a complaint of feeling weak, and in some cases impotence. The B.M.R. will be found lowered, and the administration of thyroid gland or extract will, usually in three days, effect an improvement.

Hyperthyroidism.—Overactivity of the thyroid gland may give rise to a toxic psychosis, or it may exacerbate an existing psychosis, or act as a catalyst to a dormant psychosis. On the other hand, it may itself be the effect of mental illness,

or, at least, a pre-existing hyperthyroidism may flare up under mental stress. A thyrotoxic psychosis follows the course of any other organically produced delirium, and may proceed to a state of coma. Where a true psychosis of non-toxic type develops we must suspect the presence of a psychotic predisposition, since no unequivocal 'hyperthyroid psychosis' can be demonstrated.

In hyperthyroidism we shall find considerable nervous tension, a state of anxiety impossible to distinguish from psychogenic anxiety unless physical signs are investigated. Of these must be mentioned an increased B.M.R., increased pulse-rate, loss of weight, an increase in all secretions, increased nitrogenous output in the urine, increased calcium excretion, fine tremors, and exophthalmos in some types. The hyperthyroid patient is emotionally unstable, very irritable, and sometimes shows profound changes in his thinking.

No clear psychiatric illness due entirely to endocrine causes has as yet been isolated, and no psychosis can be cured by endocrine therapy. Much more work and evidence are needed to prove the contrary. Anxiety and shock play a large part in thyrotoxicosis and in exophthalmic ophthalmoplegia, as does also in all probability the thyrotrophic hormone of the pituitary. But, in any case, mental reactions are uncommon in toxic goitre, nor does operation relieve the mental symptoms.

Although much has been written in various text-books about emotional stress failing to cause hyperthyroidism, very little is said about unconscious factors. An air raid may not cause hyperthyroidism, but a thwarted urge may and does cause such a state, expressing itself in a converted and disguised form via the endocrine vegetative system in predisposed individuals. Nor will an individual so affected benefit by operation, since his conflict remains untouched—though sometimes it is made worse—thereby. The endocrine system is phylogenetically the oldest part of the vegetative nervous system and remains related thereto in a loosely structural way, some of its members possessing obvious morphological resemblances to nervous structures, others less obvious ones. The whole system probably controls the chemical reactions

of the body and it is thus functionally related to the earliest period of our evolutionary past, which began with cosmic physical and chemical forces—those very forces which still remain determinants of our reactions. Therefore, when we speak of unconscious factors we mean to include these forces, since the unconscious contains all the chemistry of our enormously ancient animal past. Our conscious life is to this unconscious past as one second is to a million years. It is within this realm that unconscious mental mechanisms induce modifications in these hormone-producing bodies, the mechanisms being there called into operation by conflict-needs. Under the persistent influence of these mechanisms the ductless glands—and almost every other organ in the body as well—undergo, finally, structural and anatomical alterations, some of which are reversible, some irreversible.

Parathyroid Disease.—The secretion of the parathyroids regulates the calcium-phosphorus equilibrium of the blood; it preserves and helps to extract calcium from the food for use by the blood. A deficiency causes violent tetanic contractions of the musculature, acting in this way like alkalosis, over-breathing, or excess intake of sodium bicarbonate. The whole central nervous system becomes hyper-excitable, and the muscular spasms and cramps may proceed to actual epileptic fits. Hallucinations and mental confusion of the acute delirium type have been reported, as also anxiety states, delusions of persecution, and depression. These conditions clear up with adequate treatment. The administration of parathyroid extract becomes valueless after a few weeks, and better results are obtained with the synthetic product dihydrotachysterol.

Pituitary Disease.—The symptomatology of diseases of this gland will be found in the appropriate text-books. Mental disorders occur with some frequency in Cushing's syndrome, and are usually of the depressive reaction type, with agitation, and developing into ideas of jealousy. On the other hand, psychic factors can influence, even to a pathological degree, the pituitary function. This is shown, for instance, in the menstrual abnormalities in cases of depression, after fright, or after psychic shock. Anorexia nervosa is the

classical example, all the pituitary functions being depressed: there is amenorrhæa, due to lack of the gonadotrophic hormone; atrophy of the thyroid, due to lack of the thyrotrophic hormone; emaciation and asthenia, due to lack of cortin and corticotrophic hormone.

Psychoses are rare in pituitary diseases. Personality changes occur in some cases of acromegaly, where a general slowing down and a depression of mental functions are found.

Adrenal Disease.—An adrenogenital syndrome is described as occurring in young women which is characterized by irregular growth of hair of male distribution, increased output of 17-keto-steroids, and certain mental symptoms. The latter include depression—largely as a reaction formation to the growth of hair on the face; paranoid features such as ideas of reference, shyness, and jealousy; suicidal utterances; a state of apathy, with a feeling of futility of life and all its activities. Menstrual disturbances are the rule. In such circumstances over-activity of the adrenal cortex may be suspected, and unilateral extirpation of the gland results in physical and psychological improvement of marked degree (Allen and Broster). Operative procedure should not be undertaken in menopausal hirsutism, as it is of no value here.

Depression and irritability are associated with Addison's disease, and in its later stages delirium reaction, leading on to coma, may develop.

Apart from what has been said of the relationship between schizophrenia and testicular degeneration there are no known psychoses directly or indirectly attributable to dysfunction of the remaining endocrine glands, though many personality variations connected therewith have been described from time to time. We are safe in asserting, nevertheless, that no endocrine abnormality by itself produces any profound alteration in personality. Virilism, eunuchoidism, homosexuality (in a few cases), and abnormal sexuality may all arise on a basis of endocrine disturbances. Endocrinopathy is, however, too vast a subject to be usefully treated in a work of this kind, and the reader is referred to books and monographs which specifically deal with this complex and fascinating subject.

PELLAGRA AND MENTAL DISEASE

As a result of work done on nicotinic acid during the past seven or eight years, this disease, first described in Spain and Italy, and later recognized in large numbers in Rumania, is now being diagnosed with increasing frequency in mental hospitals especially amongst patients whose feeding habits are faulty, or who have suffered from dysentery, or who are undergoing prolonged sedative treatment (as with barbiturates, for instance). It is found amongst chronic deteriorated schizophrenics as a concomitant; also as a physical disease entity with supervening mental symptoms. In its chronic form it is known to produce irreversible organic changes in the central nervous system.

Pathology.—In spite of what has just been said, there are nevertheless no specific changes in the central nervous system except for the occurrence of irritative lesions of the Betz and anterior-horn cells, sometimes in conjunction with hyaline changes in the cerebral blood-vessels and degeneration of the posterior and lateral tracts of the cord. There appears to be no involvement either of peripheral nerves or of the sympathetics.

Symptomatology.—The complete clinical configuration includes stomatitis, glossitis, dermatitis, loss of weight, porphyrinuria, diarrhœa, tachycardia, vomiting, and certain mental abnormalities. Larval forms of the disease are, however, the most frequent.

Glossitis is usually present, though it may affect the margins of the tongue only. Diarrhœa may be of long standing and may precede the characteristic symmetrical dermatitis by many months. The mental symptoms range from mild psychoneurotic manifestations to frank psychoses. Amongst the former are found restlessness, anxiety episodes, and a dislike for strong sense stimuli such as light, noise, smell, and taste. The patient suffers from fatiguability, and is emotionally facile. Of the psychotic disturbances the delirium reaction is the most frequent, though depressive and paranoid states also occur. It is probable that if milder symptoms and signs of the disease could be correctly evaluated and treated

the graver psychotic developments would not materialize. In mental hospitals suspicion should always be aroused when a patient suffers from intermittent diarrhœa, shows early signs of glossitis, and loses weight.

A proportion of cases show protein deficiency with resulting nutritional œdema, and others iron deficiency with anæmia.

Early diagnosis is important, as treatment in the later stages of the disease is of little value.

It is probable, though no certain tests are as yet available, that pellagra is related to those syndromes in which nicotinic acid deficiency is a leading factor in causation, e.g., certain atypical psychoses and encephalopathy.

Treatment.—A diet of high caloric value constitutes the nucleus of all treatment. This may consist of milk and meat juices at first, and later of ordinary diet with the addition of fresh animal food and a liberal supply of milk.

Nicotinic acid, in conjunction with thiamine or riboflavin, should be administered. The daily dosage of the former amounts to 700 or 800 mg. in the early stages. The other B factors can be introduced in the form of brewers' yeast, 15–30 g. daily. Later, a maintenance dose of nicotinic acid of 30 mg. three times a day may be given, whilst the diet of meat and milk is continued.

PSYCHOSES WITH PERNICIOUS ANÆMIA

A certain number of sufferers from pernicious anæmia and subacute combined degeneration of the cord develop psychotic symptoms, the percentage being stated to be between 4 and 15. It is probable that the psychological changes in the personality occur before the anæmia has developed, and concurrently with the manifestations of cord degeneration. Some writers have stated that an acute psychosis which declares itself in the midst of an established pernicious anæmia or subacute combined degeneration of the cord clears up within a few weeks of the parenteral administration of crude liver extract.

A psychosis which develops later on in the course of the disease is frequently of the depressive type, with ideas of unworthiness, suicidal utterances, and mild paranoid features.

A delirium reaction may also occur from time to time during the course of the disease. Usually, too, such patients are irritable and at other times apathetic, or suspicious of the actions of those around them. Lack of vitamin B₁ as a causative factor in this condition is more than probable.

Amongst other symptoms met with are confusional episodes, with disorientation and defective perception; impairment of memory, indifference to surroundings, and lack of initiative; twilight states; and complaint of strange sensations in the viscera.

The physical treatment consists in the exhibition of liver extract, whilst the mental state should be managed on general lines already referred to under the appropriate headings.

DISSEMINATED SCLEROSIS

In this disease there occur patches of demyelination, followed by gliosis, over a widespread field of the central nervous system. One of its characteristics is, in the early stages, the frequency of remissions alternating with relapses; another, early focal manifestations not always clearly distinguishable from psychogenic disturbances, such as loss of control over limbs, disturbances of vision, paræsthesiæ, tremors, vertigo—all of which are liable to come and go without at first apparent organic cause.

It is for these reasons that hysteria, for instance, occurring in a young adult should always put the psychiatrist on his guard. Such patients are frequently euphoric and emotionally unstable. Irritability and depression colour the clinical picture in some cases. A disorder of blood coagulation time may be characteristic of disseminated sclerosis (Simon), and this might provide an additional test in its differential diagnosis.

Memory is reduced in some cases, and intellectual defect may be marked. Judgment is usually poor. Other mental reactions include delusions, both grandiose and persecutory. Epileptiform fits have been reported, as also visual and auditory hallucinations. Quite often the patient develops hysterical symptoms in addition to his organic ones, and a thorough examination of the central nervous system should, as in all cases coming before the psychiatrist, be undertaken.

CHEMICAL TOXINS

Alcohol and certain other habit-forming drugs have already been dealt with, and only a few more of the usual drugs encountered in psychiatric work need here be considered.

The Urea Group of drugs comprises a very large number known as the barbiturates, some of which are at present being used on an extensive scale. No unanimity of opinion as to their mode of action has yet been reached, except for the theories that the action is a chemical one occurring in the cell-body or a direct dilatation effect upon the walls of the small blood-vessels in the brain, with a possible predilection for the vestibular organ and the cerebellum. Overdosage with barbiturates produces delirium reactions typical of organic disease generally. Besides this both speech and writing may become ataxic, and voluntary movements inco-ordinated. Intellectual functions become impaired, with memory disturbances, reduction of attention, interference with thinking, and unreliability of judgment. The patient may become suspicious and even paranoid. On the other hand, he may be merely fidgety, irritable, volatile in thought and action, and sometimes aggressive. Paræsthesiæ and dull pains may be complained of in some cases.

Bromides are not infrequently given to excess, and supervening disturbances in the mental and physical spheres are not uncommonly misinterpreted as being an exacerbation of the condition for which they were being prescribed, rather than the result of overdosing with the drug. Toxic symptoms are said to develop when the body chlorides are replaced by the bromide to an extent greater than 30 per cent and the consequent retention and accumulation of bromide takes place.

Mild forms of bromide intoxication present the symptoms of a reactive-depressive state. The patient is unable to concentrate and his memory is impaired; he is depressed, disinclined to eat, and sleeps badly. With greater bromide concentration the severity of mental symptoms increases, and the patient now presents the features of the typical delirium reaction, with confusion, disorientation, and hallucinatory experiences of a frightening character. The physical

symptoms, which may be of all grades of severity and may lead on to coma, include a slurring speech, ataxia in all limbs, with tremor of hands and diminution or disappearance of the deep reflexes.

The treatment consists in stopping the drug and administering large doses of sodium chloride. The delirium is managed in the usual way. Blood-bromide estimations will need to be carried out.

Carbon Monoxide, or coal gas, is frequently used—and in most cases successfully—for the purpose of suicide. Of those who recover, some suffer permanent damage to the cerebral cortex and corpus striatum, which show patches of softening, perivascular infiltration with mononuclear cells, and infiltration of the softened patches with compound granular cells. It is said that the severity of the symptoms is proportionate to the degree of saturation of the blood with the monoxide, which combines with hæmoglobin and thus interferes with the oxygen-carrying function of the blood. Anoxæmia follows.

Mild cases may only complain of headache and vomiting. More severe types suffer, in addition, from weakness, vertigo, dimness of vision, and collapse. Convulsions and coma mark the final stages, usually preceded by a state of delirium. Patients who have recovered may be left with such residual symptoms as a perplexity reaction or a dream state for some weeks. According to Kraepelin a pseudo-recovery may be followed by the chronic reaction. This is characterized by paralyses or pareses, dysarthria, tremors, and sensory disturbances; and the mental symptoms include perplexity reactions, delirium, and sometimes a condition not unlike a Korsakow psychosis, with loss of memory both recent and remote, and confabulations.

CHAPTER XVIII

PSYCHOSOMATIC DISTURBANCE IN THE CHILD

GENERAL CONSIDERATIONS

THE theory, consistently adhered to throughout this work, that the pre-morbid personality of the individual afflicted with mental—or physical—illness represents the cardinal factor in the shaping of his behaviour pattern during the illness, should theoretically and logically find its justification in the study of children, both normal and abnormal. We should, in other words, be in a position here to discover those personality types in their nascent state which may prove to be fraught with danger when, later in life, they are called upon to face the many trials and stresses incident to maturation and socialization.

Habits of reaction to external and internal stimuli are established in early childhood, and some are already obvious in infancy. It is the function of the child psychiatrist to find and evaluate the many primitive pointers and signs which help to build up our knowledge of safe and unsafe types—without at the same time losing sight of the individual amongst a possible profusion of ‘types’. It is an enormous task, and a difficult one, but a task which should find its ultimate compensation in the lessening of mental illness and an increase in human happiness.

Before learning to assess childish signs and symptoms we must learn the art of observing the small things in a child’s life: the way he eats and the food he feels disgusted at; the fuss he makes over his bladder and bowel functions; his willingness or dislike for going to bed; his emotional attitude towards his parents; his reaction to punishment, whether this be inflicted on himself or on a brother or sister; his

interest in learning, in games, in handling things; his play, his aggressiveness, his love, his dependence or otherwise on home; his day-dreams; and a host of other behaviour patterns and personality attributes, none of which can ever be accounted too insignificant, since they, together, form the nucleus and the stuff of which the future man is made. They are the raw material wherewith he carries on his dealings with reality and lays his small soul bare to the intelligent, understanding, sympathetic, and unbiased observer. He will make use of certain well-known types of mechanism when, wittingly or unwittingly, he finds himself in difficulties with his world; he may take refuge in day-dreaming, he may show various defence reactions, he will indulge in varying identifications and projections, and he may take flight into regressive reactions. It is in the child that we must search for these dynamisms if we would study them in their embryological states.

It is in the child, too, that we shall get to know something of the early signs of those various types of personality which we meet amongst adults: the over-conscientious child, somewhat obsessional and much taken up by guilt feelings; the shy, retiring, unsociable child; the talented child; the aggressive type; the anxious and over-dependent type. Again, certain more definitely psychoneurotic traits may declare themselves. Amongst these we might mention early infantile antagonism towards all and sundry; protest habits and rebelliousness; attention-getting devices; home and family fixations; and others, such as negativism, tantrums, feelings of inferiority and inadequacy. Certain fear reactions are also often met with, and amongst these we count fear of death or illness, fears of the unknown, of being trapped, of old people, of going amongst strangers, of religious matters, and so forth.

First among factors specifically influencing the child's psyche is its environment—and, more intimately, its home. No matter what its quality, home is to the child his sole sheet anchor in a sea of unpredictable and perplexing waves and currents. It constitutes his stabilizer, his standard of reference, the magic fortress against which outside dangers, imaginatively projected on to the world at large, are impotent. It is here, secondly,

that he, whether consciously or unconsciously, adopts behaviour patterns rooted in examples set him by parents and others. Example, far more than precept, provides him with ready-made and unconsciously assimilated models of living; it is upon example, rather than upon reiterated catechism, that he will base rightness or wrongness of thought, wishes, and actions.

Thirdly, the child's mind is flexible and suggestible. It is still free from the distorting and conflicting influences of later years, free also from the disquieting echoes of imperfectly repressed material, free from prejudices, and free, still, from the accumulation and assimilation of predigested clichés about life. It is upon such plastic material that parents have the privilege and the responsibility of impressing the seal of their own personalities—for better or for worse.

Finally, there is the question of the child's supreme egocentricity. This, it need hardly be said, constitutes a normal stage in development. Socialization and civilization begin where egocentricity leaves off, and where the latter persists into adult life serious conflict with the environment must be expected. For, whereas self-interest is the mark of the child, in the adult it is the mark of immaturity. And again, whereas self-interestedness is a necessity in the child, it becomes, in the adult, a distorting motive in thought and action, and this most frequently on the unconscious level. By egocentricity we here understand that inner need to force the self into the centre of the environment and to make the environment the willing servant of the self at all times. It is with a view towards establishing a balance between the wishes of the ego and the imperatives of social environment that efforts of parents and others are directed, and it is largely upon their methods and the quality of their own personalities that success in the struggle depends.

Few children survive the storms of their psychological emancipation if subjected to either over-indulgent parents or capricious disciplinarians. In the first case they may expect a rude awakening when they begin to mix with their equals in age; in the second they may develop into cowards or, negativistically, into renegades. The over-indulged child will then feel the need for the comfort and security which appear

to be lacking outside his home and will soon adopt the method of playing sick in order to bend his environment in his own favour ; or he carries his egoism into adult life, where the hatred of his fellows will sooner or later spell disaster to his happiness. Perhaps the worst possible parental combination is the over-anxious mother and the domineering father. The children of such conflicting parental antecedents are often the victims of inadequacy and insecurity feelings, or they show marked aggressiveness in both its subtle and gross manifestations.

The subject of the child-parent situation would need a volume to itself, and cannot adequately be described in a short work such as this. Only a few of the parental misconceptions more usually met with will be mentioned. Thus, often the father may be expecting his son to fulfil those ambitions which he himself has failed to reach but has dreamt of achieving all his life. Such vicarious motivation, quite often, meets with disappointment in the parent and a sense of hopeless frustration and anxiety in the child. Implicit obedience, that self-assigned prerogative of the neurotic, or guilt-laden, parent, is a form of bullying all the more dangerous and insidious because of its spurious moral and religious sanctions. Obedience means nothing unless it has its roots in fairness, in equity, and in all-round co-operation. It may be found necessary in dealing with animals in the house, but it is a fetish of the worst order when we deal with our children. We should in fact ignore bad behaviour as much as is compatible with peace and safety in the home, and always be prepared to approve good conduct. The opposite of this maxim belongs to an era when fathers, in their immature arrogance, and overwhelmed with their unconscious identification with the deity itself, set themselves up as minor gods in the home.

It goes without saying that where we use the term father we mean to convey the meaning of authority in the child's microcosm. This authority might well be vested in an uncle, a grandfather, a teacher, or a mother *in loco patris*.

Again, to bring up a child on a quasi-adult pattern and without so much as allowing him some rights of his own—the right to get dirty, the right to take his toys to pieces, the right to

bring forward his own arguments against certain parental commands, the right to join in adult conversation, the right sometimes to finish his game before rushing to obey, the right to make his meal-times a social occasion for exchanging banter—is simply a method of conditioning him to serve the parent's own convenience. Nor should we omit to give children, early on, some form of personal responsibility in order to introduce into their minds the notion of socialization and emancipation.

Amongst other truisms one might say that the practice of threatening the unlikely or promising the impossible is an unwarrantable one; and also that few children ever tire of having things explained to them—over and over again.

CLINICAL INVESTIGATIONS

Often parents or guardians express their reason for bringing the child to a psychiatrist in terms of some organ dysfunction, as well as in terms of psychologically abnormal behaviour. A physical examination will therefore be called for sooner or later. This examination is directed towards the supposedly offending organ or system; it should be as full as the circumstances demand; it should, as far as possible, be free from the fear-increasing atmosphere of the specialist's consulting room; it must be short and final, and only optimism and encouragement should enter into any conversation held in the child's hearing during or after the examination. Children of the 'nervous' or 'neurotic' stamp are only too prone to fix their attention upon their organs and to adopt any particular physical malfunction as a weapon in difficult situations or as a harbour of retreat against unwanted realities—a procedure which they might well have copied from their home. There is also the ever present danger of the child grossly misinterpreting what is said about his symptoms.

Of physical symptoms there are many, and they may of course run through the whole range of physical medicine. There are, however, certain complaints which occur with greater frequency than most others, and these will presently be referred to. But, first of all, some more general questions must be submitted by the clinician; questions which will indicate his mode of procedure.

Amongst these the first will be, not only what is the child's complaint, but also how does he trouble his parents, relatives, friends, and teachers. What, in effect, do they think and feel about the sick and difficult child? What are their reactions to his peculiarities and abnormalities? In this way we shall get to know whether we are dealing with a sympathetic milieu or with an atmosphere of perhaps resentment, annoyance, retaliation; or whether the parents and others are inclined to excuse the child's behaviour or to blame him for his shortcomings.

Secondly, how is the child's problem being handled. Quite often there is too much submissiveness on the part of the parents and too much harshness on the part of others, and between these two opposing camps the child loses his sense of proportion towards his troubles and is driven into the ambiguous position of having to adopt differential behaviour. The question here also arises as to the strength and quality of his own feelings. He may feel wronged or guilty; he may show shame or be merely annoyed and irritated; some children are amused at their symptoms and at all the fuss that is being made of them; and some are just plainly indifferent. Most pertinent to the prognosis and to the progress of the treatment is the question of ascertaining whether or not the child wishes to be helped.

Biographical notes, including the temporal details relating to the origin of the trouble, should be made, and these can be followed by a physical examination. A report from a trained psychologist on the child's intelligence may be advisable, and is indeed necessary in cases where some deficiency is suspected. Special care must be taken with regard to this, since ready-made intuitive impressions are entirely unreliable and abound with pitfalls. During the taking of the child's history his environment will have come under notice, as also his heredity, and his emotional reactions will have been observed, to some extent at least, during the first interview.

Subsequent interviews must in the main be devoted to observing the child at play, to getting him to invent games or stories of his own, or to continue a story in his own way, or to interpret pictures or toy situations. Play technique or play

analysis gives the best results when the child is taken individually—that is, in the absence of a third party—but it is clear that much additional information will be gained by using, from time to time, the method of group play to supplement the individual technique. To watch a child at play and to learn to interpret his fantasies and inventions constitutes the analogue of dream analysis in adults—the royal road to the unconscious. But, like dream analysis, it is a method which needs to be learnt and can only be safely depended on after much experience. Besides possessing experience the therapist needs a certain amount of intuition, must be able to feel himself into the play situation created by the child (empathy), and be endowed with a capacity for sympathy.

Finally, one must never fail to look at the total life-situation of the small patient. To take a symptom such as bed-wetting or thumb-sucking out of its context is utterly useless and bound to lead to therapeutic failure. We would go further and state that no childish illness should ever be treated without some guidance, during or after, by a trained psychiatrist, be the illness what it may, since all and any physical illness unavoidably leaves its traumatic impress on the young sufferer, such as advantages gained from the illness, or fears and panics experienced, or deprivations undergone. No somatic disease exists which has not also its psychic implications.

SYMPTOMATOLOGY

As long as we keep in mind the fact that no 'symptom' is ever found in isolation, that every indicator of psychic trouble belongs to the totality of circumstances making up the child's existence, there is no harm in referring to symptoms separately and in studying them individually. The importance of, for instance, environment is well brought out in the case of the 'problem child'. Such a child may be mentally backward, or destructive, uncontrollable, full of fears, unhappy; or he may steal, tell lies, or be aggressive or bad tempered: but always we shall find some such factor as a broken home, or an atmosphere of discord, over-anxiety on the part of one or both parents, inadequate or excessive

discipline, too much protectiveness or too little love, and so forth.

Again, in children even more than in adults, psychic disharmony shows itself behind the mask of some physical symptom. Organ dysfunction may affect any of the bodily systems, from the central nervous system to the involuntary musculature, though some systems appear to be preferred to others: enuresis, vomiting, anorexia, and constipation, will readily come to mind here. On the other hand, the symptom may be related to the psychic system mainly, such as fears of animals and of old people, counting, fastidiousness, excessive neatness, inability to pay attention, lying, running away for no obvious cause, bad temper, jealousy, truancy, shouting, hitting.

Leaving aside the clear-cut physical diseases—and their psychosomatic and metapsychological implications—we are left with a number of physical and psychological symptoms which recur with great frequency, which cannot be regarded as belonging to any particular bodily or mental syndrome, and which do not *per se* constitute such a syndrome. The classification of these symptoms presents, therefore, a difficult task. To say, for instance, that truancy is a behaviour disorder, and that nail-biting is a habit disorder, is to give these symptoms a superficial semblance of importance out of proportion to the deep causative factors underlying them, nor does it help us much to understand their true meaning in the psychological sense.

The difficulty, therefore, of classifying the symptoms met with in child psychiatry probably resides in the nature of those symptoms. They are protean and do not appear to belong to any of the recognized adult disease complexes; they are primitive manifestations which have never found a place in text-books dealing with adult physical, or even mental, illness. We must, nevertheless, for the sake of imposing some order upon these many and varied symptoms, adopt some scheme of classification, and we shall consequently place them as much as possible under the headings of bodily systems, but without the implication that those systems are at fault in themselves—indeed, with the implication that they are usually not at fault at all.

Our classification will, then, include the following :—

1. Symptoms mainly expressed physically.
2. Symptoms referable to the psychic structure.
3. Stammering.
4. Other symptoms indicative of psychic conflict.
5. Psychoneurotic disturbances.
6. Psychotic reactions.

This scheme is a clinical one, and it should be used subject to the above-mentioned provisos.

I. SYMPTOMS MAINLY EXPRESSED PHYSICALLY

a. Alimentary System.—The most common complaints under this heading are loss of appetite, vomiting, and constipation; anorexia nervosa and fæcal incontinence are not common.

The underlying factors may be an existing psychoneurosis or anxiety on the part of the mother, and frequently both. The child may be disgusted at certain foods only, and these may include greens only or both meat and greens, his diet becoming restricted to carbohydrates and plenty of drinks. Linked with disgust there are usually vague fears, which cover the actual taking in of food which does not look clear and easily identifiable, or of drinks that are not served in a clear glass. Some children cannot bring themselves to eat or drink from any plate or cup which has been touched by someone else, and this 'fussiness' may reach alarming proportions.

Anorexia—which may occasionally assume the features of a true anorexia nervosa—may be associated, on the surface at least, with a recent somatic illness or a recent surgical operation. In other cases the trouble dates back to a change of environment and diet, or even to a change of school. That these factors are not causative is proved by their being reversible. That is, these very same factors can act as means of curing the trouble. Many cases of anorexia begin at puberty.

Incontinence of fæces may be considered under the next heading, as it is based on the same pathogenic principles as enuresis.

It is assumed that all organic causes of vomiting and of the other alimentary symptoms have been excluded, such as

cerebral tumour, renal disease, chronic appendicitis, and others.

b. Urinary System.—Under this heading we shall consider nocturnal enuresis, and it may be assumed that faecal incontinence is subject in the main to the same genetic factors and follows the same lines of treatment.

Much has been written about enuresis, many causes have been proposed, and many forms of treatment tried. With the exception, perhaps, of such physical elements as cystitis and spina bifida, the basis of enuresis is a psychophysiological one, and any method of treatment which neglects to take note of this fundamental aspect is doomed to failure. And therefore we must remember that the enuretic patient shows a lack of cerebral inhibition as well as anxiety and even psychopathy, and that anxiety states are the paramount disturbers of the autonomic system—a combination of factors which justifies the above description. There are also certain constitutional factors to be taken into account. These are the predominance in the male sex, and the presence of psychiatric and psychosomatic disorders in the family history of enuretics. Also common amongst them are phimosis, adenoids, and intestinal worms, and these should be treated in the first instance.

Psychotherapy holds out the only hope of a cure and of preventing the habit from persisting into adulthood. Like epileptic fits, stammering, and blushing, enuresis becomes for the sufferer a sort of *alter ego*, an ever present shadow, a damaging blot upon his activities, his plans, his joys, his life; and any parent or physician who fails to invoke the aid of a child psychiatrist trained in some form of analytical psychotherapy falls short of his obligations towards the young patient.

Enuresis, then, is not an isolated symptom, either in the individual or in his family. It is a matter of the whole personality. With it are associated other indications of the instability diathesis, and usually more than one member of the family and of the ancestry of the patient is affected. Many incidental factors have been listed to account for the condition, such as parental neglect, social misery, loss of a mother, deep

sleep, and others, but none of these must be held in any way directly responsible. Whatever 'organic' concomitants may be associated with it, bed-wetting is also the expression of an unconscious conflict. The enuretic child, like other members of his family, responds somatically by means of bladder dysfunction (or more rarely with faecal incontinence, or both). The habit, once established, assumes momentum and importance in its own right and may persist into the early twenties. In the experience of the writer precocious sexual interest can usually be demonstrated, either in the form of erotic fantasies or activities, or as a conflict in connexion therewith, and external circumstances, of whatever nature they may be, merely influence the condition either favourably or adversely. It is found in all classes of society and amongst all grades of intelligence, amongst the excitable as well as amongst the phlegmatic, but in boys very much more frequently than in girls.

When enuresis persists beyond the age of 8 it becomes, like psoriasis and stammering, one of life's major burdens to its victim. Feelings of inferiority soon become apparent in the child's attitude, and secondary compensatory mechanisms are resorted to, either in the form of shyness, solitariness, and asocial tendencies, or of aggressiveness, dissatisfaction with the environment, and a proneness to use the mechanism of projection when stress, frustration, or failure threaten.

c. **Sexual Sphere.**—The manifestations of the sex instinct, whether overt or concealed, whether conscious or by way of reaction patterns, appear upon the human scene from the first year onwards. Sexual curiosity and a vague awareness of the existence of some hidden and forbidden power, vested in grown-ups only, show up after the fifth year as a rule and may last into the tenth year, only to be dealt with more or less fully consciously at puberty.

Fantasy-weaving around such subjects as birth and the mysteries of anus and urethra is common, and is invariably brought out by the play or drawing technique, as is also sex play with other children and siblings. Up to a point such exploratory and experimental activities must be considered a normal stage in the child's general development and need no special attention unless and until they become material for

conflict or are metamorphosed into stealing, cruelty, aggressiveness, destructive tendencies, and so on.

Masturbation can hardly be said to be a symptom, since it is practically universal among children and adolescents. If it frequently figures in the history of neurotic children it figures just as frequently in that of the normal, the only difference being one of degree of conflict in relation to the act, a conflict which exteriorizes itself in blushing, absent-mindedness, lack of concentration, feelings of guilt or inferiority, mood swings, and many other such conflict indicators. The occasional masturbator is probably the one who will give up the habit as soon as he realizes the full value of a heterosexual object choice—as soon, that is, as he reaches sexual and emotional maturity. The habitual masturbator, on the other hand, runs the risk of perpetuating the act into adulthood and even into middle age.

Children, and young people, who habitually masturbate need expert psychiatric guidance if they are to be given the opportunity of becoming sexually and emotionally mature. This counsel of perfection cannot, however, be adhered to except in a minority of cases, since the habit is bound up in secrecy and is seldom referred to voluntarily by the sufferer. Here, as usual, many factors of a quasi-causative nature are listed: seduction by elders, pampering, neglect, too much or too little parental love, drunkenness and poverty at home, and parental nervousness—an uninspiring list.

We must, above all, face the fact that masturbation is a pleasurable act of the first magnitude amongst hedonic performances generally, and specifically so amongst the young. Secondly, it constitutes the early, narcissistic manifestation of a fundamental urge, the urge to relieve psychophysical tension. Thirdly, it must be looked at from both the biological and the psychological angles.

The question of guilt-punishment must, therefore, not be allowed to crop up in our dealings with the childish or adolescent masturbator. It should only be discussed in its social setting—that is, when the masturbator has reached early adulthood and when the possibility of cheating a partner out of his or her sexual rights might arise. But in childhood the guilt

aspect must be excluded, as must also the religious fantasies so often weaved around this subject by the church, as being psychologically unsound and therapeutically disastrous.

Homosexual activities amongst children may also be looked upon as yet another manifestation of a normal stage in their psychosexual development. It is much less frequent than autoeroticism and carries the same implications as to habit formation, fixation, and guilt feeling. The same may be said of all sexual 'inversions' (so-called) amongst children; they are as a general rule nothing more than exploratory and experimental steps towards maturation.

d. Psychomotor Sphere.—

i. *Thumb-sucking and Nail-biting.*—These are usually classified as nervous habits. We prefer to consider them as disturbances on the psychomotor plane, like other compulsive acts, because the denotation of the word habit hardly covers their deeper significance. That is to say, whilst nail-biting and thumb-sucking, and the sucking of any other objects, become established as habits, they are also much more than that. A child given to this form of activity beyond the second year stands in need of psychiatric help, because the nail-biter of to-day is the 'nervous' individual of to-morrow—using the word nervous here in its widest sense. Of nail-biting it may be said that it represents, primarily, aggression directed towards the self; that it is a rudimentary form of self-destruction. As Bovet (1942) points out, the anxiety element is hidden by various factors, all of the nature of forced suspensions of activity in which the nail-biter finally gives way, in desperation, to this form of masochism. Too much importance need not, however, be attached to these habits in early childhood. Although the habit is an indicator of some conflict it is not itself the subject of any but the mildest conflict, and then only on the superficial, social level. A habit of this sort, giving a maximum of tension-relief and causing a minimum of conflict, is calculated to persist into adult life and should on this account be treated. Care must be taken, however, not to dramatize or too strongly emphasize the unlearning process, lest a comparatively innocuous symptom become neuroticized.

Thumb-sucking, nose-picking, and the sucking of articles of clothing or toys on going to bed, are likewise indicative of personality difficulties, and, like nail-biting, give an outlet for tension via jaw movements. One might well wonder whether pipe smoking, the cigarette habit, and the perpetual chewing of gum do not also belong to this category of tension outlets in which aggressive jaw and mouth movements receive harmless satisfaction.

In many children the sucking habit becomes so firmly established that without it they refuse to go to sleep. This type of rhythmic activity has many of the characteristics of a ritualistic compulsion, and may be regarded as a fixation in, or a regression to, early infancy in the face of frustration. Real lack of love or even unconscious hatred for the child on the part of the mother, who is herself psychologically immature, is often a prominent element in the genesis of this compulsion. It would be interesting to know whether these activity-addictions, with their oral-erotic colouring, belong to the category of the later adult addictions to drugs and alcohol, and whether the thumb-sucker and nail-biter is the potential addict of later years.

ii. *Tics*.—It is said that 70 per cent of tics begin before the age of 10. A tic starts as a compulsive movement of the facial muscles or of the head, and may thence spread to the whole body. Continuation into adulthood, or a relapse later in life, are common. The compulsion, once established, thus becomes a psychomotor refuge in times of emotional stress or as a conflict-compromise. The origin of the habit may be found in a local stimulus, or is a reaction to conscious or unconscious frustration.

The movement ceases when the child is pre-occupied with some other activity. It ceases also under the influence of suggestion and during sleep. At first it is easily controlled by the child's conscious desire not to give way. But like all compulsive symptoms it causes physical and psychic discomfort if resisted too long, and presently it returns, often with fresh intensity.

One might also include within the category of compulsive tics many mannerisms of walking, talking, writing, and so on.

Thus there are vocal tics such as explosive words and the repetition of words such as 'listen', 'I say', 'I mean', and many others of a sexual or profane kind. Mannerisms of walking are also frequent—a mincing gait, for instance—when approaching others or when walking into a room where there are other people gathered together. Difficulty in swallowing when watched, and some forms of writer's cramp, are others.

Analytic psychology brings out the underlying fundamental principle of a withdrawal from the world with a concentration of interest in the body. In fact, as Paul Schilder has put it, tics are the motor counterpart of hypochondriasis. Often we shall find that such children are infantile, emotionally backward for their age, and usually somewhat given to self-idealization and vanity. They are shy, restless, of slight and delicate build, and unstable in their vasomotor reactions.

It has been suggested that the anatomical substratum of the condition may be late development or under-development of the basal ganglia, and that this defect presents the child with a facilitated reflex path for use in times of social or psychological difficulties.

Tics should be distinguished from other spasmodic motor abnormalities. The possibility that we may be dealing with myoclonus, chorea, or athetosis, either in children or in adults, must be borne in mind.

Other motor disorders, not peculiar to childhood only but frequently found in children, are :—

iii. General motor restlessness ; an inability to sit still for any length of time ; a kind of exaggerated fidgetiness of which parents and teachers complain.

iv. A generalized jerkiness of movement, usually associated with irritability and lack of concentration.

v. Unusual clumsiness of movement and a generalized lack of movement.

The parents of children showing these various disturbances in the psychomotor sphere should, it need hardly be said, be themselves investigated, and it will be found that many among them are themselves restless and excitable.

e. **Vasomotor System.**—Children are particularly prone to disturbances of their as yet unstable vasomotor systems.

Symptoms referable to dysfunction of this system are numerous and heterogeneous, as might be expected considering the type of spread-out innervation that is supplied by the autonomic nervous system and the fact that it is peculiarly susceptible to changes in the psychic sphere. Though not all of the following conditions are unequivocally or wholly due to abnormal vasomotor functioning, they may certainly be regarded as psychogenic in origin unless other irrefutable evidence exists, in any particular case, that causation is physical.

Of this nature are recurring attacks of diarrhœa or constipation, travel sickness, fainting fits, migraine, frequent complaint of feeling tired, periodical pallor, hypersensitiveness to smells and noises, headaches, spells of feeling limp, loss of consciousness. Any of these are only too easily demonstrable in those children that are commonly called 'nervous' and are the offspring of 'nervous' parents. Equally certain is it that such children are psychologically handicapped in their later struggles with life's more exacting situations and are liable to break down psychologically or to exhibit personality traits and character defects unless judiciously handled.

Emotional upsets, whether consciously or unconsciously brought about, are the prime disturbers of a child's physical well-being—as well as of its psychic peace—and there is hardly an organ or a system of organs that escapes the onslaughts of severe, or repeated, or prolonged emotional stirrings, since the anatomical effectors of the emotions invade every part of the human body, from the cerebral arteries down to the bladder. The choice of system to be attacked is—probably—a matter of inheritance (or disease), a matter of inherited systemic weaknesses which render these inferior systems more vulnerable than the stronger ones. Others believe that the particular psychological situation in which the child finds itself can, through its symbolic meaning, centre the pathological functioning upon one or other organ, or system, thus causing an "organ neurosis". Again, home and environment may decide the choice. The child hears his father's periodical complaint of a "splitting headache", or witnesses his mother's recurring bouts of "dropped kidney", and, unsuspectingly, begins to produce similar symptoms.

That unconscious factors lie at the root of many, if not of most, children's autonomic disturbances has been proved by analysts and analytical therapists such as Helene Deutsch, Melanie Klein, Anna Freud, and many others who have devoted time and skill to the elucidation of a problem which continues to baffle those general physicians who prefer to pin their faith solely to the bottle, the diet sheet, and the hospital cot.

2. SYMPTOMS REFERABLE TO THE PSYCHIC STRUCTURE

Sleep Disorders.—Although sleep is a type of physical behaviour, it is nevertheless so much subject to psychic influences that the two aspects should be considered together. It could therefore equally cogently be dealt with under psychic or physical symptomatology. On the whole, however, children's sleep troubles are far more often of psychic than of physical origin, and are therefore best dealt with under the above heading, whilst such clearly physical factors as pain and disease are left to general medical text-books.

Fear of falling asleep is of frequent occurrence among children, and some psychological conflict may confidently be posited here. The child struggles against losing consciousness, against losing touch with his world, and on analysis it is found that his fear relates to death—or rather, his conception of death. Or, more often, he is afraid of his feelings of guilt derived from forbidden impulses, for which death might well be the punishment. The ego knows that these repressed impulses push forward with greater intensity at the time of falling asleep than they do during waking hours, and that is the reason why the state of sleep is feared and fought against. Perhaps the fear has started with an anxiety dream of traumatic potency and the fear of sleep is then a fear of dreaming as of an instinctual temptation. In some cases, too, there is a fear of wetting or otherwise soiling the bed, more especially where parents, in their ignorance or immaturity, have threatened to punish the child.

On the other hand, some children suffer from psychogenic inability to stay awake, either in the afternoon or early evening. If the fear of falling asleep may ultimately be equated with a fear of death, then conversely we may say—and this has been

proved by analysis in many cases—that sleep urgency is a method of retreat into oblivion (a partial suicide) in the face of problems and conflicts.

Pavor nocturnus is one of the most striking disturbances of sleep met with in childhood. Although it has attracted attention from many analysts it cannot be said that all the difficulties connected with it have been explained.

Case.—A little girl of 4 would wake up two hours after having fallen asleep and would scream loudly and alarmingly. Her pupils were dilated, the pulse-rate reached a speed at which it became impossible to count, sweat broke out on her head and forehead, the hands were clammy, and she occasionally wet the bed. The soothing sound of her father's voice sent her to sleep again, but her mother's voice woke her up and she would refuse to have anything to do with her. In the morning no memory trace of the event remained. She was an only adopted child, her father's favourite; the mother, who had never wanted to adopt the child, was of an immature and emotional type, impatient with the child's failings and not in love with her husband. The child showed other neurotic traits such as sucking her bed-sheet, which she twisted into the shape of a sausage; temper tantrums; whining for no apparent reason; and occasional bed-wetting. She had on several occasions wished her mother out of the way. She was at peace when with her father, in whose arms she would on occasion be allowed to fall asleep. We have here, therefore, all the ingredients which go to make up a clear Oedipus situation, with guilt anxiety and fear of retaliation motivating the *pavor nocturnus*.

Sleep-walking, like *pavor nocturnus*, is fundamentally a psychopathological event, and, like it too, should be treated by psychotherapy. The reason for this is that these symptoms denote psychic disharmony and conflict, which can only be relieved by a psychological approach. The sleep-walker may speak and perform a number of activities without waking up and without recalling the event on the following day. But he evinces neither fear nor anxiety during his somnambulism, both of which characterize *pavor*. Obviously there exists in these cases well-marked dissociation between psychic levels, and the symptom appears as a not unpleasant compromise formation, the sleep-walker being remarkably composed and efficient in his, often complicated, activities. Male cases seen by the writer brought out the existence of a severe super-ego combined with a strong mother-fixation.

3. STAMMERING

Because of the complex nature of this symptom it is here provisionally considered by itself. That is to say, the problem of stammering should be approached from both the physiological and the psychological angles ; it is a defect of the whole speaking apparatus, anatomically and physiologically. It offers many difficulties in treatment, some of which would appear to be insuperable. On the other hand, a complete cure has been effected in quite an appreciable number of stammerers by psychotherapy.

It is said that some 60 per cent of cases start before the age of 2, that is before speech function is properly established. This function has its co-ordinating centre, in 75 per cent of human beings, in the left cerebral hemisphere—the ‘ dominant hemisphere ’—which also makes the right hand the ‘ leading hand ’. The possession of a dominant hemisphere, that is, of a specialized hemisphere, probably made it possible for man to evolve far ahead of the nearest non-human mammals in his capacity for intellectual processes. It is also in this hemisphere that symbolization is largely developed, though probably not entirely so.

Electro-encephalographic records tend to show, though not all workers agree on this point, that stutterers have a different lateral (hemispheric) excitability from non-stutterers. Others using the same method have found no significant differences between normals and stutterers. Speech-sounds can, according to some workers, be arranged in order of difficulty, the five sounds giving the greatest trouble being g, d, l, th (unvoiced), and ch ; those giving the least being vowels, though wide variations have been observed. Longer words are usually more difficult than short ones, as they would seem to provide the stutterer with a longer danger period during which, in his eagerness to get through the difficulty, his anxiety increases. Three stages have been described, which can best be represented by the word k-k-k-katy ; k—aty ; grimacing and contortions.

In children the psychological factors are often immediate and obvious. The young stutterer seems to be in a hurry, pushing his thoughts far ahead of his speaking speed, perhaps

because of sibling rivalry, competition, or stress. Or he may be imitating, on the basis of identification, an older person or child who stammers. Trauma to the mouth has initiated it in some, too much supervision of speaking in others, surgical operations (e.g., tonsillectomy) on the mouth or throat in yet others. The stammering is then perpetuated into an anxiety symptom, which may last for months or years, as his fear of speaking grows.

Psychoneurosis as a genetic element is of prime importance. But we must nevertheless be on our guard against too much simplification, here as elsewhere, and be prepared to find a multiplicity of cumulative factors. A child who inherits speech instability or who has lived with an adult stammerer is only too likely, during periods of anxiety, to make use of the least resistant system either via anatomical routes or along the paths of identification. A constitutional peculiarity, of the nature of which we know next to nothing, predisposes the child to the use of such mechanisms. This peculiarity is in the main an emotional instability, to which must be added psychic trauma as a precipitant. Stutterers are usually intelligent children, rather unsociable, and lacking self-confidence. They are prone to introspection and sensitive to the opinions of others, wondering what kind of impression they make on their surroundings. They are easily hurt, stubborn, ego-centric, and often aggressive. Often, too, their personalities are immature; they lack persistency, are 'antagonistic', cynical, and vengeful. Some of these characteristics, at least, may be in the nature of reaction formations to the speech defect.

Analysts have described the stutterer as possessing a strong oral component in his make-up, as having in fact eroticized speech and genitalized the mouth area. He is fond of food, of sucking, and of kissing. He is afraid of divulging his innermost secrets and has succeeded in resolving his conflict by means of a compromise formation such as a speech dysfunction.

Freud sees in the stutterer many features of the compulsive psychoneurotic, such as anal eroticism, sadism, and narcissism, with a certain rigidity of personality. It would be

difficult not to agree with both these descriptions, whether they are ultimate and not further analysable, or not.

4. OTHER SYMPTOMS INDICATIVE OF PSYCHIC CONFLICT

Under this heading we may conveniently place those fragments of child behaviour which appear abnormal when observed, as they should be, in the light of the child's efforts at socialization and against the background of his milieu. Some children in their attempts to conform with the traditions and sanctions current in their environment fail periodically or persistently, being torn between the reality principle and the pleasure principle, and forced under pressure of the conflict to adopt certain antisocial measures. Amongst these are lying, truancy, wandering, stealing, cruelty, temper outbursts, destructiveness, faulty feeding habits. When any of these recur frequently we should rightly look upon them as symptoms of an inner disharmony which is being exteriorized in the guise of a clash with society. Therefore the motive for such misbehaviour is to be sought below the surface. The small boy who habitually steals is not merely making someone else's property his own—though this is the case sometimes as well—but has a deeper motive, one of which he is seldom fully aware. The little girl who habitually, and without any apparent provocation, tells lies, does so for reasons which, though seldom far to seek, are nevertheless rarely conscious. Truancy and wandering are often quite clearly escape methods adopted by the day-dreamer, the child who is bored with school, the sexually disturbed child, and more rarely by the child who seeks adventure. In cruelty, temper outbursts, and destructiveness we see an exaggeration of the normal aggressive impulses which will sooner or later in childhood find their own peace in sublimation. Faulty feeding habits are usually more persistent than any of the other conflict symptoms mentioned. The difficult feeder is the sensitive, shy, dreamer type of child who takes a long time over his meals, has odd likes and dislikes, is fussy over table utensils, drinks a great deal, is usually travel sick, and lives in a little world of his own.

These behaviour disorders are not in themselves abnormal when occurring singly or in isolated instances. It is their

frequent periodicity, or their persistency, or their intensity that marks them out as psychopathological, and in such cases expert psychiatric handling becomes a necessity and a duty. Especially is this the case where negativism constitutes a major behaviour attribute, as it does in nearly all these symptoms. The child unconsciously denies the reality of his difficult and exacting world and makes use of such mechanisms as will approximate it more closely to the universe of his wishes. He tells lies because fantasy is to him more desirable and more true than actuality, besides being less fraught with danger, either to himself as a social person or to his ego-ideal. Stealing is a kind of guilt-indulgence which saves him from giving way to the more dangerous kind of indulgence associated with sex stirrings. When he plays truant he is in a position to deny the reality of school life for the time being and to give scope to his dreams and fantasies. His unconscious—and often conscious—argument runs: “If you imagine that I am going to do as I am told for ever, you are mistaken; I am going to do the opposite, just to please myself for once”.

Cruelty, unless it be habitual sadism, is the equivalent of inflicting upon those who are unable to strike back the pain and the misery which the child suffers, or imagines he suffers, at the hands of those above him. Unnecessary punishment, parental harshness and severity, may foster cruelty in the child.

We would emphasize again the necessity of fairly and correctly assessing the seriousness or otherwise of all behaviour disorders in children. A child is a social being only *in statu nascendi*; he is learning by experimental hit-or-miss rules rather than on the principle of “do as I tell you to”, and in his attempts at socialization he is bound to make innumerable mistakes. Many a child has had his fair reputation blackened by parent or teacher for no more cogent reason than that he was blundering through the process of becoming a worthy social being.

5. PSYCHONEUROSES

If by this term we mean the established adult pattern of psychoneurotic reactions, then, like the psychoses, they must be rare in childhood. On the other hand, psychoneurotic

episodes repeated in times of conscious or unconscious conflict are more common, and usually fragmentary. True psychoneuroses of the fully developed kind are, nevertheless, sometimes encountered.

Example at home, especially that of parents and older siblings, constitutes a strong formative influence in the genesis of psychoneurotic symptoms, both during childhood and in later years. Malleable and suggestible as he is, the small child easily adopts the ways and means which he has seen used by those around him when in difficulties. But we must guard against calling an occasional psychoneurotic manifestation a psychoneurosis.

Of psychoneurotic reactions the most frequent are hysteria and anxiety states, though hypochondriasis, phobias, and compulsions also occur.

a. Hysterical Reactions.—More often than not a hysterical reaction in a child is no more than a primitive method of drawing attention to himself, of evading an unpleasant task, or of getting even with his environment. Hysterical conversions are therefore particularly common, such as wetting, vomiting, feeling sick, limping, headaches, abdominal aches, general skin irritations, sobbing, capriciousness, negativism, and a host of others, all of which can be cured or remarkably improved by compensatory love-attention on the part of the adult who happens to be involved in the child's emotional needs. (Freud's concept of the transference in the psycho-analytic situation will come to mind here.)

Here, more than in any other department of childhood psychopathology, the force of adult example clearly shows itself. Unavoidably such conversion symptoms may present many pitfalls in diagnosis, as every general practitioner of experience knows only too well. To be conversant with the total family picture of the child's home would seem to offer the best safeguard against mis-diagnosis, since it is in dealing with hysterical reactions that the factors of the child's suggestibility in relation to its elders is strongest.

This behaviour pattern, learnt at home, may become habitual, and may constitute a reaction type to which the child will return in later life. More usually, however, it is purely a

transitory reaction to unpalatable circumstances either at home or at school. The psychogenesis may be related to sexual precocity and sexual complexes, such as masturbation-guilt and erotic urges of an incestuous nature. But as a rule they are brought on by such simpler and more superficial problems as fear of the father or school teacher, fear of having to go to bed in the dark, or too much fussing by the mother.

An essential aspect of true hysteria is its archaic and atavistic nature. And if by atavism in this sense we mean a return to methods of reaction belonging to earlier levels of psychic evolution, then we shall not be surprised that children should be prone to such primitive methods of escape since they have as yet only reached the threshold of civilized life, and have of necessity still to learn, by experience and example, that there are worthier and more mature ways of coaxing the environment to one's desires and, alternatively, of submitting to the environment. We must, therefore, exercise caution in diagnosing 'hysteria' in children. Hysteria in adults and in children suggests, clearly, very different implications both from the nosological and prognostic standpoints.

b. Anxiety Reactions.—Here, too, environmental atmosphere plays an important role. A feeling of apprehension or anxiety may be induced in even the youngest children by parents and others in ways so subtle that they cannot be recognized by onlookers. An anxious mother will make an anxious child, in spite of her efforts to hide her own feelings. Especially is this the case where a strong bond of mutual emotional dependence exists, as between mother and son, for example.

As with hysteria, we may sometimes speak of true anxiety psychoneurosis in children. When the reaction seems frequently to occur and is related to danger situations of both conscious and unconscious types, and of such a nature as to possess little, if any, basis in actual external threat, we may rightly assume that the child is suffering from an anxiety state or a true anxiety psychoneurosis.

The symptoms of this condition do not differ in essentials from those exhibited by adults: rapid pulse, pallor, sweating, tremors, diarrhœa, colic, vomiting, wetting, and others, all

figure amongst the external signs of anxiety. Some children are afraid of almost everything that is different from the home environment as seen by daylight and with all its members present. The solitariness, quietude, and darkness associated with bedtime are to many a child the signal for the onset of a state of fear or panic. Going to school, preparing for a party, setting out on a journey, travelling in fast-moving vehicles, meal-times in strange places, the arrival of visitors, episodes of discord between parents, the arrival of a new toy, the birth of a sibling, and many other major and minor events in the child's life, may bring on an attack of anxiety in some children.

Fears and apprehensions of all kinds of tangible realities are, in effect, merely projections motivated by an intangible fear that issues from the unconscious realm. This ultimate fear itself has its focal point in a feeling of insecurity, a feeling of unwantedness, of unlovedness, with or without obvious foundation. Besides responding to this inner fear by outwardly projected multiple phobias, the child may become aggressive, on the principle that a world which can cause him to be so afraid is a world against which one must defend oneself by the counter-measures of attack. Freud sees phobias as projections of inner dangers, with substitutions and displacements, and he assumes the dynamic factors to be an unresolved Œdipus situation with its resultant fear of castration punishment. Every phobia would then be a punishment exacted by the feeling of guilt for criminal wishes and urges, masturbation and incest fantasies—the application of the *lex talionis*.

We would accept the view that some fears are remnants of instinctual defence mechanisms, and are therefore basic and irreducible; and that others may be repetitions of previously experienced danger situations belonging to the realms of actuality, of fantasy, or of dream life. But in order to explain a multiplicity of fears and apprehensions in one and the same child we need a comprehensive and fundamental theory such as is offered to us by psycho-analytic teachings.

As an example of multiple fears and frequent states of anxiety we quote the following :—

Case.—A boy of 6, whose parents were married at the fourth month of his intra-uterine life and whose coming was much dreaded by his mother because she feared the opprobrium of her own father, began to show phobias of all kinds about the age of 3. Amongst these were a fear of the dark and of sleeping alone; of animals large and small; of strangers, tramps, old men and women; of riding in other people's cars; of storms, of pathetic stories heard over the wireless; of running out of petrol, oil, or water when in his father's car; of various kinds of foods and drinks ("they look dirty"); of policemen, clowns, pantomime antics and noises, cinema close-ups and noises. He also suffered from travel sickness in cars and in the air. He felt safe only at home, was extremely fond of visiting churches in town or country outside the hours of service, showed much kindness and generosity towards his two younger siblings, as well as towards his mother and maternal grandparents. He loved his mother above all else, but exhibited on occasions aggressiveness towards his father, of whom he was also somewhat afraid. He would at times complain of feeling sad. He was an intelligent child, very fond of reading imaginative writings, but only of the kind that dealt with subjects devoid of pathos or cruelty. He gave no history of fits, of bed-wetting, of temper tantrums, nail-biting, sleep-walking, or nightmares. Psychotherapy along Freudian lines and two or three interviews with the parents upon the same principles have effected an amazing transformation.

c. Obsessions and Compulsions.—Obsessions and compulsions in children, if not too marked, do not carry the same implications as do these symptoms in adults. One might say that they are almost universal between the ages of 5 and 14, though present in different degrees in different children. Counting, touching objects, saying certain words or using certain short phrases by way of magic influence, ritualistic acts on going to bed or on getting up, addiction to symmetry and over-tidiness, stereotyped mannerisms of all kinds: these and many others figure among the visible symptomatology.

Obsessional symptoms usually pass off around puberty, and it is only when they persist in strength beyond this age that we should begin to think of them in the adult pathological sense and regard them as of import from the point of view of personality type, of unconscious motivation, and of prognosis.

Closely allied to obsessions and compulsions are what Bender and Schilder (1940) termed "impulsions", which

are usually found among children between 4 and 12, who show stubbornness and hypochondriacal pre-occupations and who may later on pass over to obsessional and compulsive fears and acts. Early infantile situations and desires are presumed to be the genetic factors in this condition, which is never the direct expression of sexual or aggressive urges but is rather related to the family situation, and which expresses itself by means of transformations and symbolizations. Amongst its symptoms are counting and a pre-occupation with numbers and space; excessive walking; continuous handling of a specific object, drawing the object, and pre-occupation with the object in fantasy and thought. These children are imperative in their desires and brook no frustration. Consequently they often act in an antisocial manner in order to reach their ends.

6. PSYCHOTIC REACTIONS

True psychoses in children are rare, few authenticated cases appearing in psychiatric literature. Their treatment and management follow adult lines, subject to reservations and modifications dictated by child material in general.

GENERAL PRINCIPLES IN THE TREATMENT OF PSYCHIC DISORDERS IN CHILDREN

Several factors already alluded to place the treatment of psychic disorders in children on a somewhat different footing from that of adults. Amongst these figure the plasticity of childhood material; the immaturity of its psychophysical system; the recency of its symptomatology; its amenability to example and often to precept; and the fluidity of its still-evolving sense of socialization and civilization. To these must be added the child's egocentricity and the very strong moulding influence of its environment, both at school and at home. Between the latter two, moreover, there must always exist some degree of rivalry, unconsciously produced, for the child's affection and loyalty, as well as a tendency, not necessarily expressed in consciousness, to measure and judge standards of living as experienced in the two sets of surroundings.

It is well, too, to consider every case on its own merits, and to discard bias as much as possible for or against any particular school of thought. So complex and variable are the many factors that go to the moulding of abnormal psychic reactions in children that we can hardly expect to treat them entirely along mass principles. A change of school or a change of home may be desirable in one case, and useless, or even harmful, in another.

Always, when dealing with children, it is imperative that we interview both parents, separately and together, during the course of our interviews with the child. The object of this is twofold : first, to collect data about the child ; secondly, to attempt to find out what the parents' reactions are to the child's difficult behaviour and to desensitize them to it. Finally, we shall have to impart our instructions to the parents regarding the ways and means of handling the small patient.

If possible, too, other relatives and also teachers should be seen and questioned. Often enough we shall find that school and home reports differ in essential details, are in fact opposites. Only in this way shall we succeed in obtaining a glimpse of the total situation, of all the components that have precipitated the disorder.

As has been said, such major methods as advising removal to a foster home, or a change of school, or a change from school to some employment, should always be considered with care and good judgment, as they are, in effect, methods of escape. On the other hand, much good may be done by stopping corporal punishment both at home and at school, by giving the child more pocket money, by finding him an interest outside home and school, and by giving him rewards for good behaviour.

Punishment must always be carried out with much circumspection, and infrequently. Parents who are too prone to hit and slap their children, teachers and magistrates who are too easy with the birch, are not themselves free from those unconscious motives which they are trying to punish in the child. The compulsion to punish on the slightest provocation has its origins in unconscious or emotional levels similar to those of the child who appears persistently to need punishment.

Moreover, by too much punishment we in some way injure the individual and we cannot expect to mend him by damaging him.

Group therapy has recently been advocated, though this should be supplemented by individual treatment and by social work in the home and at school. It helps to release feelings and inhibitions which are more freely expressed in the presence of other children and makes the child realize that other children have similar feelings. Besides this the group reactivates home conditions and enables the participants to re-enact sibling rivalries in the group situation. Children will admit to aggressiveness more freely in the group and they are also better able to bring up their more intimate problems. Play therapy is another form of treatment in which are enacted, either by the children themselves or by doll-characters, certain home and school conditions forming the basis of the child's difficulties. Here, too, we aim at the release of hostile feelings towards parents and siblings, the alleviation of guilt feelings, the expression of love fantasies, and the incorporation of therapeutic suggestions.

Frequent repetition of such play will also help to desensitize the child to reality conditions. Play technique in treatment has the additional advantage of giving the child a means of expressing those emotions and feelings for which he has no words, this being especially the case with pre-puberty children whose vocabulary is still rudimentary.

It must not be supposed that child guidance clinics, group therapy, and play therapy can in any way replace the only really sound approach to child psychotherapy, namely, analytical psychotherapy, especially where we are dealing with children between 10 and 14. The removal of symptoms may be achieved by other means, but the ultimate goal towards which therapy must strive is an adjusted personality—a result which can only be achieved by analytic psychotherapy.

Some of the more important symptoms, where treatment may call for more specific methods and means, may now briefly be dealt with.

a. Alimentary Disorders.—The household must be pacified and restored to an equable temper. All threats

must stop, whilst strictness remains in a less obvious form. Let it be emphasized that meal-times are not, as our Victorian forefathers thought them, special exhibitions of deportment and manners. They should be pleasant interludes in the day's march, where sociability and friendliness prevail.

The parents must be told that the child's symptom is the expression of an unconscious desire for power, for recognition, for esteem.

The child should be given every encouragement and help in finding and organizing games and creative opportunities.

By allowing him to eat with other children, whenever this is possible, by varying his foods, and by restricting the intake of fluids, much can be done towards depriving meal-times of their banality and boring repetitiveness.

Sedatives or pleasant medicines may sometimes be advisable, as also a change of environment. Hypnosis with suggestion may in some cases be necessary. But in all cases the general principles already laid down above may be adhered to with advantage.

b. Urinary Disorders.—In all cases we should try and discover whether the symptom is the result of environment or is a neurotic compromise formation. In all cases, too, fluids should be gradually reduced without neglecting the child's thirst-needs, and no fluid should be given after five o'clock in the afternoon. Those children who seem to need much sleep and who are deep sleepers can be allowed a short rest after dinner, whereas the more active ones may be given an opportunity, plus some guidance, for exercise.

It may be found that some children are continually wanting to pass water during the day. These should be systematically trained to go at certain times only, the period between urinary excursions gradually lengthened. The patient should be awakened one hour to one hour and a half after going to bed, and then again, if possible, some four hours later.

Where inferiority feelings—or their reaction formation, dominant self-assertion—are present, depth psychology is indicated. In very refractory types hypnosis with suggestion will give gratifying results. Electrotherapy, if only for its suggestive value, has been found beneficial in some cases.

Of drugs, atropine, ephedrine hydrochloride, or dry extract of belladonna have been advocated, together with regular attendance at a children's clinic. Benefit from this treatment has been derived in a number of cases. It should be begun with small doses, which are gradually increased to tolerance.

Kindness and patience are the watchwords here as in all our dealings with children. Punishment should in all cases be rigorously excluded.

c. Sexual Disorders.—Enough has already been said of sexual activities in children, including masturbation, to indicate general lines of treatment, or rather general principles to be adhered to in the handling of such children.

Perhaps the most important principle in this connexion is to teach the parents to cultivate a more tolerant, and at the same time a less interfering, attitude towards sexual experiments and escapades in their children.

Where co-operative sexual play is persistent and threatens the child's psychic and physical well-being, the partners in such play must be kept separate and the child unobtrusively guarded against opportunities. Here, too, parental organization and direction of the day's programme should be instituted. The child must be induced to understand and to appreciate that there are plenty of other interests in his life besides satisfaction of sex curiosity, and these interests should be offered him together with adult guidance and enthusiasm.

d. Thumb-sucking and Nail-biting.—As these habits are clearly linked with psychic unrest their treatment should proceed along analytic lines.

It is, perhaps, well to provide other sources of pleasure, so long as such alternatives are selected in accordance with the child's interests and likes, and as long as monotony is avoided. Non-irritating garments should be worn, and they should be light. Relatives must be desensitized to the habit, which must from the beginning of the treatment remain the concern of the psychiatrist.

e. Tics.—Here depth therapy holds out the only hope of success, incomplete though this will be in most cases. As with all childish illness the home atmosphere will need pacifying and desensitizing.

Strenuous games must be replaced by graduated and supervised gymnastics ; playtime hobbies will also be of help. Re-education by planned exercises of the muscles in the tic area has been advocated.

Bromides or other sedatives should only be given in extreme restlessness. As a rule children with tics sleep well and do not need soporifics. A short sleep during the day, if it can be managed and if the child can be persuaded, may be beneficial.

f. Sleeplessness.—From the account already given it will be clear that sleeplessness is prone to occur in psychically disturbed individuals, and that therefore these cases must be handled psychologically.

As adjuvants to analytic therapy games and gymnastics in the daytime may be tried, though it must be borne in mind that a quiet and regular mode of life should be the watchword. A change of surroundings can only be justified in certain obstinate cases, such as anxiety states which can be traced to home contacts.

A warm drink and a biscuit, given to the child when he is in bed, is often found to have a suggestive value, as it imparts an air of finality to the day's busy-ness, and children come to appreciate this rounding-off ceremony. Here, if anywhere, the principle of the conditioned response would seem to be at work.

Some children expect a story to be read to them. On the whole this is not to be encouraged, but if the child has been led to expect such entertainment from very early on then it will have become an unavoidable part of the ritual. In these circumstances a story may be told, as long as it possesses certain qualifications : it must be short, have a pleasant ending, and be entirely free from moralizings. Romping games are to be shunned. Nor do we hold with hypnotics, whether mild or otherwise, except in severe types, and then only if they can be administered without the child's knowledge of their specific action, or, better still, without the child's knowledge of ' medicine ' being administered at all.

g. Stammering.—Although psycho-analysis is undoubtedly an efficacious form of dealing with speech defects of this kind, we cannot place too much reliance upon it for a cure.

Much improvement can nevertheless be effected by such means, as also by speech training and exercises.

The two claims to success in the treatment of stammering, one by psycho-analysis, the other by all kinds of speech training methods, would tend to support the hypothesis that the symptom has a double aspect and genesis, one psychic, the other structural. Or shall we assume the existence of some archaic psychic principle acting from the depths of the unconscious realm upon structure itself? The stammer is a bodily or somatic exteriorization of an affective state—should we add to this that it is founded on a psychobiological deviation of the organism as a whole?

Child stammerers react to explanation with remarkable relief of symptoms, and in their treatment neurologist, psychiatrist, teacher, and sociologist may all find a place. Treatment should be begun early—that is, as soon as speech pathways and centres are fully developed, and certainly not later than the seventh year. In the opinion of the writer the adult stammerer is seldom cured, though often a remarkable improvement in his attitude towards his symptom, and above all, towards his environment, can be effected by analytic methods without the adjunct of speech training and such-like means. This also applies to the child, and *a fortiori*.

h. Psychoneuroses.—The treatment of psychoneurotic disorders in children follows, in the main, the general lines already laid down in the treatment of children and of adults, and the reader is referred to the appropriate sections above.

GLOSSARY

For the convenience of readers not wholly familiar with the psychiatric vocabulary certain frequently used terms are here listed, together with their specialized meaning within the framework of psychological medicine.

Small capitals refer the reader to the catchword so indicated, for fuller information.

Abreaction : The process of unburdening repressed and pent-up emotions during the psycho-analytical session.

Abulia : Lack of drive, of desire, of will-power.

Affect : A generic term meaning feeling-tone generally ; emotion.

Agnosia : Failure to recognize objects once familiar ; may be auditory, visual, or sensory.

Ambivalence : The presence in the mind of two contrasting feelings about the same object, e.g., a child's feeling of both love and hate for the same parent.

Amentia : Another term for mental deficiency ; compare with DEMENTIA.

Anxiety : The fear of a threat to our ego-security ; often symbolically referred by the patient to a fear of some outside danger, but, in fact, psychogenetically determined.

Apraxia : Inability to carry out an intended act which is, nevertheless, fully understood ; most frequently seen with localized lesions of the brain (vascular or neoplastic).

Archaism : Method of thinking or acting belonging to the racial prehistoric past, such as 'picture thinking', certain symbolisms, and the methods used in dream-life.

Asthenic : Applied to that type of bodily build which is thin, elongated, spare, angular ; seen amongst SCHIZOTHYMES (Kretschmer).

Atavism : Belonging to a phylogenetically older order.

Athletic : Applied to that type of bodily build which is slim but in which the skeleton is massive, and especially so the shoulder-girdle and extremities (Kretschmer).

Autism : Self-sufficiency ; lack of need for the company of others ; a withdrawal from the outer realities to the world of inner realities.

Automatism : A co-ordinated action carried out in the absence of full realization or awareness and which is alien to the totality of the circumstances in which it is being enacted ; met with in post-epileptic states and in CATATONIA.

Behaviourism : The name given to a school of thought which seeks to explain all human activity in terms of stimulus and response, of habit formation, and of habit integration. Both consciousness and imagery are ruled out as redundant concepts, or indeed, as being mere figments. "Experimental work done on the human being would, then, be directly comparable with the work done in the animal laboratory", says J. B. Watson, a protagonist of this school.

Bradykinesia : A slowing down of all voluntary movements ; in neurology, a kind of torsion spasm.

Catalepsy : When a catatonic schizophrenic maintains any posture in which his body is placed he is said to be in a cataleptic state. (See also FLEXIBILITAS CEREAE.)

- Catathymia** : A generic term applied to those changes in the psychic content brought about by affective influences.
- Catatonia** : The name applied to a certain type of bodily behaviour seen in some kinds of schizophrenia, characterized by posturings, NEGATIVISM, complete passivity, and FLEXIBILITAS CEREAE. This behaviour alternates with periods of violent and impulsive excitement.
- Censorship** : The tendency of the PSYCHE to exert a selective influence on those contents of the UNCONSCIOUS which threaten to enter into consciousness (Freud).
- Cognition** : The act of knowing ; the capacity to know.
- Compromise** : A method whereby the mind seeks to resolve a conflict between two opposing tendencies, the latter meeting again in the compromise-formation, e.g., a psychoneurotic symptom, a dream, an error in speech, and other errors.
- Conation** : The felt impulse to act ; a desire to act ; a striving towards some form of activity.
- Concept** : The product of 'conceptual' thinking, which itself is concerned with establishing universals, or generalizations, from a mass of particulars.
- Condensation** : A process characteristic of the unconscious system, of primitive people, and of dream life, whereby several objects or several aspects of an object are represented by a single composite object.
- Confabulation** : Where memory deficit is marked the patient may try to fill in the gaps with fictitious accounts which he accepts as factual : in Korsakow's psychosis and some senile states.
- Conflict** : A psychic struggle between two opposing tendencies, being usually of the nature of instinctual demands on the one hand, and the defensive forces of the EGO on the other.
- Constellation** : An aggregate of more or less integrated factors operative in bringing about certain types of behaviour ; also, the structural pattern of a psychosis, a psychoneurosis, a personality, but usually bearing a genetic or causative implication.
- Conversion** : A term applied by Freud to the mechanism whereby an unwanted desire, after being repressed, is given expression in the form of a physical symptom, as in Conversion Hysteria.
- Cycloid** : Essentially, that which relates to emotional rhythm or mood swing ; the cycloid temperament is the less striking form of CYCLOTHYMIA.
- Cyclothymia** : A tendency to be open, sociable, and engrossed in one's surroundings ; a tendency to mood swings between cheerfulness and depression ; it is said to go, usually, with the PYKNIC type of bodily build.
- Death-instinct** : A Freudian hypothesis, and the opposite of Eros or the life urge ; may be directed against the self (suicide, self-torture, self-hurting) or against others (cruelty, destructiveness).
- Delusion** : A belief which is true only to the person holding it and to none other (except in cases of folie à deux). An *illusion* might be termed a delusion in the perceptive field ; that is, a presenting sensory stimulus is being misinterpreted. An *hallucination* also could be described as a delusion in the perceptive field, but in the absence of an outside presenting stimulus ; it is an imaginal product.
- Dementia** : Denotes a terminal mental state of profound personality dilapidation.
- Dereism** : A mode of thinking peculiar to the UNCONSCIOUS and characterized by its being unrelated to reality and influenced by feelings and instincts.

- Dissociation** : The splitting off from consciousness of a group of mental processes which then proceed to function autonomously.
- Dynamism** : The concept of energy as applied to mental phenomena, their interaction and counteraction.
- Dysmnnesia** : A general term implying disturbance of the function of remembering.
- Dysplasia** : The more marked forms of deviation from the usually accepted standards of bodily habitus, as often met with, e.g., in severe psychoses such as schizophrenia.
- Echolalia** : Repetition by the patient of words or phrases uttered in his presence ; a form of automatic obedience, like ECHOPRAXIA and FLEXIBILITAS CEREAE.
- Echopraxia** : Actions and gestures noticed by the patient are repeated by him, automatically and without meaning.
- Ecology** : A biological term applicable to psychology and implying the adaptation of man as a whole to the whole of the cosmos (Haeckel, Jelliffe).
- E.E.G.** : Used here to represent the electro-encephalograph-wave rhythm ; a disturbance of this rhythm is found in idiopathic epileptics, but also in many other brains not patently so affected.
- Ego** : That selective constituent of the PSYCHE which differentiates between stimulus reception and impulse discharge. It inhibits our instinct activities in accordance with reality needs, and it derives its energy from the instinctual reservoir of the Id.
- Ego-ideal** : The pattern of what one would like to be ; closely bound up with the SUPER-EGO, or that power which would punish us for not living up to the ideal.
- Empathy** : The capacity to feel oneself into emotional situations as experienced by others ; a temporary identification with the OBJECT.
- Endogenous** : Inherent in, and proceeding from, the PSYCHE.
- Euphoria** : A mild degree of elation coupled with a sense of physical well-being.
- Exogenous** : Deriving from environmental factors, such as toxic, traumatic, social, and other factors.
- Fetishism** : The use of inanimate objects to arouse sexual excitement.
- Fixation** : The retention in later life of childhood or infantile emotional ties or modes of acting, feeling, and thinking. Related to the process of REGRESSION.
- Flexibilitas Cereae** : A form of automatic obedience in which the patient retains any bodily posture imposed on him by some other person, sometimes for hours, and without showing normal fatigue.
- Fugue** : A physical flight from an unpalatable situation to some distant place, followed by total or partial amnesia for the event ; a form of hysterical DISSOCIATION.
- Ganser Syndrome** : A hysterical syndrome in which the patient, frequently under detention awaiting trial, wishes, though not entirely consciously, to be thought 'not responsible' and simulates a state of childishness, although the manner of his performances is clearly based on full adult capabilities.
- Hallucination** : The response to a sensory perception, but in the absence of an outside presenting sensory stimulus. Things are seen, heard, or felt, without there being any provable environmental stimulus which would normally bring about such sensations.
- Hallucinosis** : A term sometimes used with reference to chronic alcoholic hallucinations ; acute alcoholic hallucinosis probably has a schizophrenic basis.
- Haptic Hallucinations** : Sensory illusions of touch, as of something crawling over the skin ; seen in toxic states.

- Hebephrenia** : A type of schizophrenic reaction in which thought content and expression reach a profound degree of dilapidation.
- Hedonic** : Appertaining to the pleasurable things of life.
- Hyperkinesis** : Excessive psychomotor activity.
- Hypermnnesia** : A capacity to remember with great vividness details relating to certain affect-laden events of the past ; met with in certain mild manic states and in paranoia ; also seen in hysteria.
- Hypnagogic Hallucinations** : Sensory illusions experienced during the brief period between sleeping and waking.
- Hypobulia** : In the literal sense a 'lowering of the will' ; a term now used to describe a primitive pattern of behaviour released when the higher psychic functions are in abeyance ; exemplified in hysteria (Kretschmer) ; a precipitated remnant of an earlier stage in human evolution.
- Hypomania** : A mild form of psychomotor overactivity.
- Hyponoic** : A term applied to those mechanisms used in the psychomotor sphere representing remnants of an earlier stage in human evolution (Kretschmer), as in dream life, hypnosis, twilight states, schizophrenia.
- Id** : A Freudian concept representing a reservoir of dynamic, driving forces—the instincts—continually striving for discharge ; from it, too, the ego derives its energy to carry out its necessary instinct-inhibiting activities.
- Identification** : The adoption, mostly unconscious, of the qualities of another person, and of a person, moreover, whom we admire or fear ; the small child, for instance, unconsciously adopts his father's attitudes and by a continuous process of identification becomes 'like father'.
- Illusion** : A false interpretation of a sensory presentation.
- Integration** : The active co-operation, under the guidance of some co-ordinating principle or force, of the parts of a whole for the good of the whole, e.g., the central nervous system, the personality.
- Introjection** : The mechanism whereby elements belonging to other personalities are incorporated in our own ; IDENTIFICATION might be looked upon as a type of introjection.
- Inversion** : As applied to sexuality this means any abnormality either of method or of choice of object ; the term replaces the less appropriate one known as 'perversion'.
- Lability** : As applied to affective episodes this means a facile and quick change of mood, of emotional show.
- Leptosoma** : That type of bodily habitus of which the ASTHENIC is an extreme example (Kretschmer).
- Lex Talionis** : The law of 'an eye for an eye, a tooth for a tooth'.
- Libido** : A term adapted by Freud to express the concept of psychic energy, which latter is a transformation of the energy inherent in the sex instinct ; it is either attached to the EGO or to outside objects, but its sum total is, at any given time, constant, as is also its quality ; only its direction varies, it being displaceable from EGO to OBJECT and vice versa.
- Mania** : A mental state characterized by increased thought production and hypermotility (that is, an increase in bodily movements both as to tempo and amplitude).
- Masochism** : The self-hurting tendency ; clinically, usually associated with sadism ; it is sadism turned against the self ; often carries a sexual implication.
- Mattoid** : On the border line of a psychosis ; a crank, an odd or 'peculiar' person (Lombroso).

- Mutism** : A psychopathological state in which the subject remains mute ; another form of NEGATIVISM.
- Myoclonus** : A shock-like muscular contraction in which the antagonists take no part.
- Narcissism** : A state of being in love with oneself ; exists not only on the sexual level, but pervades the whole temperamental make-up (see also AUTISM). It is the basis of self-esteem ; it is related to the fundamental human drive for 'omnipotence', in the Freudian sense.
- Narcolepsy** : A condition in which an irresistible desire for sleep comes on suddenly, in some cases several times a day.
- Negativism** : A condition in which the subject exhibits a strong, apparently causeless, and insurmountable opposition to anything and everything, e.g., in catatonic schizophrenics, some children, hysterics.
- Neologism** : A newly-coined word with no (apparent) meaning, though with a latent meaning for its originator ; often met with amongst schizophrenics, especially those of the HEBEPHRENIC type ; sometimes seen in dreams.
- Neopallium** : The more recently developed part of the cerebral cortex, and the seat of the highest psychic functions.
- Nihilism** : Applied to a certain type of delusion ; the patient may state, for instance, that he has no body, or that he is actually dead.
- Nosology** : A classification or arrangement of diseases.
- Object** : A term bearing a fairly generalized meaning and referring to any person or thing differentiated from the Self, e.g., object-love means love (or LIBIDO) directed to a person or thing outside the Self (and, therefore, the opposite of NARCISSISM).
- Oculogyral Spasm** : Tonic contraction of conjugate ocular muscles ; seen in post-encephalitic Parkinsonism ; the eyes are usually deviated upwards ; emotion may bring on an attack.
- Œdipus Complex** : The most literal interpretation of this Freudian theory implies "love for the parent of the opposite sex and death wishes against the parent of the same sex" ; but it must be remembered that 'love' and 'death' possess shades of meaning for a child which are far removed from the adult conception and knowledge of these words. An unconscious clinging to the Œdipus tendencies characterizes the psychoneurotic mind (Fenichel).
- Paramnesia** : Falsification of memory, e.g., confabulations, as in Korsakow's psychosis. Also met with in paranoia (retrospective falsifications).
- Paranoid** : With a tendency to interpret adverse circumstances as being directed specifically against the Self ; also, a tendency to blame the world outside for the inner deficiencies of the Self.
- Percept** : An image constructed out of sense impressions, together with the knowledge and conviction that it is externally localized and does not come from 'within us', i.e., from our own imagination.
- Perfectionism** : A felt urge to do all things in such a way as to leave no room for criticism ; it is a reaction-formation to unconscious feelings of inadequacy, insecurity, and guilt. It differs in many respects from the ordinary desire to do things to the best of one's abilities, but mainly in its unconscious motivation ; the perfectionist can, therefore, never be completely satisfied with his achievements, since his ideal of perfection emanates from, to him, unknown sources.
- Perseveration** : A movement (or word) once initiated is persistently repeated as soon as an attempt at spontaneous movement or verbal expression is made (Noyes).

- Phylogenesis** : The evolution of the tribe or race, or of any organ or feature in the race.
- Projection** : A psychic DYNAMISM whereby we contrive to disown an objectionable and unwanted characteristic and attempt to attribute it to someone else ; a mechanism of defence against felt offensive impulses ; archaically related to spitting out of unwanted food.
- Psychasthenia** : The inclusive name given by Janet to the phobias and obsessions, which symptoms he attributed to a state of " lowered mental tension ".
- Psyche** : The experiencing ego together with the sum total of the non-ego things which it inwardly experiences.
- Psychogenic** : Originating in the PSYCHE, in the mind ; produced from within ; not organically produced.
- Pyknic** : Applied to a type of bodily conformation characterized by a thick-set physique, short extremities, and a roundish well-nourished appearance ; associated with the CYCLOTHYME temperament (Kretschmer).
- Rationalization** : A mental mechanism wherewith we attempt to explain away in a logical and intellectual manner that which is, in reality, emotionally motivated ; e.g., the unconsciously mother-fixated individual will blame lack of finances for his failure to get married.
- Reaction** : Used in the psychopathological sense it means a mode of feeling or acting in response to unconscious or environmental stimuli, the particular method adopted being in some way abnormal.
- Regression** : A turning back on the part of the Ego to methods of acting or thinking belonging to an earlier stage in its evolution ; adjustment at a lower level, when faced with difficulties, whether physical or emotional.
- Repression** : An automatically operating process whereby the EGO succeeds, unconsciously, in driving some unwanted element of its experience into the realm of the UNCONSCIOUS. It constitutes one of the most important tenets of the psycho-analytic school.
- Retardation** : A slowing down in motor and thought processes. (Cf. MANIA.)
- Reversibility** : A psychiatric state may follow the relief of a physical disease ; a physical disease may relieve a psychosis.
- Rhyming** : In the psychiatric context this refers to a tendency, exhibited in certain acute manic and schizophrenic episodes, to rhyme with words heard or seen. Sometimes met with in senile and obsessional patients.
- Sadism** : A term subsumed under the general meaning of aggression ; it carries the particularized implication of taking pleasure in the infliction of pain upon others, and this, often, in the sexual sphere. (See also MASOCHISM.)
- Schizoid** : Of a retired, introspective, and inhibited type ; such a person, if he should later on develop a mental illness, would react, most probably, with a schizophrenic psychosis.
- Schizothyme** : A type of temperament predominantly aloof, retiring, sensitive, restrained, inhibited, introspective ; most often associated with ATHLETIC, LEPTOSOME, or DYSPLASTIC bodily habitus (Kretschmer).
- Siblings** : The patient's brothers and sisters.
- Soma** : The whole physical structure of a human being.
- Stereotypy** : A tendency in certain mental diseases to adopt a mannerism or pose for an indefinite period. (Cf. PERSEVERATION.)

Super-ego : That part of the Ego which inhibits instinctual activity ; it develops, on the one hand, closer to the instincts, and on the other hand it is in conflict with other parts of the ego that are aiming at satisfaction (Fenichel) ; the ego's chief critic, repressor, and judge.

Thymopathic : Affectively disturbed (Bleuler).

Twilight State : A dream state of affective or other psychogenic origin, with clouding of consciousness, sometimes with HALLUCINATIONS, sometimes with AUTOMATISMS, and followed by amnesia, complete or partial. Met with in epilepsy and hysteria.

Unconscious, The : This consists of the instincts and of disturbing desires and experiences that have been repressed (Freud). According to Jung it also contains the inherited vestiges of the primitive thinking of the race ("collective unconscious").

Verbigeration : A form of STEREOTYPY in which the same word or phrase is repeated over and over again.

INDEX

	PAGE		PAGE
A braham, Karl, on psychology of		Attitude	31
addiction	291	Aura, types of	245
Abreaction	12	Autistic thinking	50
Absentmindedness	60	Autochthonous ideas	50
Accident, psychoneurosis after	115	Auto-eroticism	143
Activity, mental	32	Auto-intoxication	24
Addiction neuroses	280	Automatic obedience	42
— psychopathology of	291	Automatism	43
— treatment of	292	— post-hypnotic	136
Adler, Alfred, on power psychology	138	Avitaminosis and alcoholism	285
Adrenal syndromes	328		
Aetiology	17		
Affect, disorders of	32, 66	B ARBITURATES, overdosage with	332
Affective melancholia, Wernicke's	174	Basal metabolic rate	326
— psychoses	148	Beard on neurasthenia	95, 119
— chronicity of	165	Behaviour	31, 40
— diagnosis of	165	<i>Belle indifference</i>	112
— physical aspects of	164	Bender, L., on impulsions	359
— prognosis of	168	Berkley, H. J.	14, 16, 95, 310
— treatment of	169	Bernheim on hysteria	111
Aggression	11, 166	Bier on bromine metabolism	165
Agnosia	270	Biopsy of brain and testes	9, 218
Albrecht's presenile paraphrenia	184	Bleuler, E.	4, 112, 162
Alcoholism	281	Blocking of thought	45
— aetiology of	282	Blood bromine	165
— chronic	294	Blood-sugar curve	165, 183
— deterioration with	280	Body-mind theory	7, 8
— genetic factor	22	Bovet on nail-biting	346
— historical notes on	281	Bradykinesia	256
— symptomatology of	283	Brain tumour	324
— treatment of	292	Bromides in epilepsy	251
Alimentary disorders in children	342	— intoxication by	332
Allen, Clifford, on adrenal virilism	208	Broster, L. R., on adrenal virilism	208
Alzheimer's disease	269	Bucknill on involutional melancholia	173
Ambivalence	68		
Amentia	4		
Amnesia	53	C ALCULATION tests	34
Analysis, distributive	115	Cannon on emotions	13, 165
Analytic therapy and theory	136, 144	Carbon monoxide poisoning	333
Anaphylaxis	10	Castration, Freudian meaning of	152
Annulment	80	Catalepsy	42, 227
Anorexia	182	Cataplexy	247
— in the child	342	Catathymic thinking	50
— nervous	118	Catatonia	226
Anxiety hysteria	130	Causation in psychiatry	18
— neurosis	130	Censorship, Freudian	137
— states	32, 67, 127	Cerebral syphilis	307
— in children	357	— vascular disease	275
— fears in	128	— — diagnosis and prognosis of	279
— involutional melancholia and	184	— — pathology of	277
— physical signs in	138	— — symptoms of	276
— symptoms of	132	— — treatment of	279
— treatment of	135	Charcot, J. M., on obsessions	119
Apathy	67	Child psychiatry	334
Aphasia	269, 277, 308	— clinical investigations in	338
Apraxia	270	— symptomatology in	340
Argyll-Robertson pupil	307	Childhood and psychoneurosis	94
Art as sublimation	78	Child-parent situation	337
Arteriosclerosis, cerebral	275	Chorea, Huntington's	254
— involutional melancholia and	184	Choreo-athetosis	43
— symptoms of	276	Circumstantiality	45
Association by similarity	44	Classification of mental diseases	4, 14
— free	45, 142	Clouding of consciousness	60, 156
Athetosis	253	Clouston, H.	14, 173, 213, 310
Attention	34	Coal-gas poisoning	333

	PAGE
Cobb, Stanley, on schizophrenia ..	217
Cocainism ..	207
Coleman, S. M., on <i>folie à deux</i> ..	207
Coma, insulin-induced ..	234
Compromise formation ..	40, 88
Compulsive phenomena ..	43, 258
Concept ..	56
Concussion ..	323
Condensation mechanism in dreams ..	140
Confabulation ..	55
Conflict ..	94, 138
Confusion ..	60
Consciousness ..	59, 137, 240
— clouding of ..	60, 156
— disorders of ..	60
Constitutional psychoses ..	4
Conversion in hysteria ..	112
— malignant ..	229
Convulsion, epileptic ..	245
Coriat, I., on neurasthenia ..	95
Cruelty in children ..	354
Cushing's syndrome ..	165, 327

DALBIEZ, R., on psycho-analysis ..	140
Davidoff, E., on endocrine therapy ..	185, 234
Dax, C., on frontal leucotomy ..	236
Daydreaming ..	77
Death and psycho-analysis ..	166
<i>Déjà vu</i> ..	55, 107, 245, 246, 248
Dejerine on hysteria ..	111
Delirious reactions ..	8
— acute senile ..	268
Delirium ..	61, 168, 319
— psychogenic ..	62
— treatment of ..	293
— tremors ..	285
Delusions ..	47, 198
— of grandeur ..	195, 199
— hypochondriacal ..	181
— of jealousy ..	202
— nihilistic ..	181
— of persecution ..	195
— poverty ..	181
— reference ..	181
— sin ..	198
— systematization of ..	180, 198
Dementia ..	205
— paralytica ..	146
— paranoides ..	309
— praecox ..	190, 204
— senile ..	15, 214
Depersonalization ..	260
Depression ..	40, 107
— acute ..	66, 148
— agitated ..	162
— chronic ..	153
— simple ..	165
Depressive states, physical aspects of ..	160
— stupor ..	164
Dereism ..	163
Destructiveness in children ..	50
Deterioration, alcoholic ..	354
— emotional ..	280
— epileptic ..	68
— general paretic ..	243, 253
— paranoid ..	313
— senile ..	205
Deutsch, Helene, on child analysis ..	267
Dicks, H. V., on 'neurasthenia' ..	350
Dipsomania ..	96
Disorientation ..	284
Displacement, mechanism of ..	51
Disseminated sclerosis ..	13, 140
Dissociation ..	331
— repression and ..	85, 106

Distortion in dreams ..	PAGE
Distractibility ..	140
Double personality ..	12, 45, 150, 156
Dream symbolism ..	107
Dreams ..	83, 139
Drobnes, S., on involuntional melan-	139
— cholia ..	177, 183
Drug addiction ..	280
— — mental illness and ..	23
Dyspituitarism ..	327
Dysrhythmia, cerebral ..	240

ECHOLALIA ..	42
— Echopraxia ..	42
Ecstasy ..	66
Ego ..	137
— ideal ..	137
Egocentricity in the child ..	336
Elaboration in dreams ..	140
Elation ..	66
Electric convulsion therapy ..	173, 187, 235
Electro-encephalography ..	240
Ellis, Havelock, on sexopathy ..	143
Emotion ..	164
Emotional deterioration ..	68
— lability ..	68
Encephalitis lethargica ..	256
Endocrine disturbances, genetics and ..	26
— — involuntional melancholia and ..	176, 186
— system, diseases of ..	325
— therapy ..	172
Enuresis, nocturnal ..	343
— treatment of ..	363
Epilepsy ..	238
— aetiology of ..	239
— deterioration in ..	243, 253
— diagnosis of ..	240
— equivalents of ..	247
— history of ..	238
— hysteria and ..	250
— Jacksonian ..	247
— medullary ..	247
— minor ..	246
— pathology of ..	242
— prognosis of ..	249
— psycho-analysis and ..	253
— symptomatology of ..	244
— treatment of ..	251
— uncinate ..	247
— variants of ..	247
Euphoria ..	66
Exaltation ..	66
Examination, psychiatric ..	29

FAIRBAIRN, W. R. D., on repres-	80
— sion ..	119
Falret, J., on obsessional symptoms ..	107
Falsification, retrospective ..	36
Family history ..	76
Fantasy ..	125, 133
Fears ..	358
— in children ..	342, 354
Feeding difficulties in the child ..	302
— treatment of ..	302
Fenichel, O., on psycho-analytic	145
— procedure ..	245
Fits, epileptic ..	105
— hysterical ..	236
Fleming, G. W. T. H., on frontal	42, 227
— leucotomy ..	44
Flexibilitas cerea ..	25
Flight of ideas ..	
Focal infection ..	

	PAGE		PAGE
Foerster on attention in paretics ..	316	Huston on insulin coma therapy ..	234
<i>Folie à deux</i> ..	207	Huxley, Julian, on unitary character-	
— <i>circulaire</i> ..	149	istics ..	19
— <i>raisonnante</i> ..	149	Hyperglycemia ..	165
Forgetting ..	55	Hyperkinesis ..	43
Free association ..	142, 144	Hypermnnesia ..	54
— will ..	282	Hypermotility ..	43, 154
Freeman, W., on frontal leucotomy ..	235	Hyperthyroidism ..	325
Freud, S., 41, 55, 63, 78, 81, 87, 93, 103, 108, 130, 131, 136, 166, 195, 219, 291, 353		Hypnosis ..	63
— Anna ..	350	Hypobulic mechanisms ..	112
— Pavlov and ..	141	Hypochondriasis ..	100, 158, 181
Frink, H. W., on psycho-analytic theory ..	80, 114	Hypomania ..	154
Frontal leucotomy ..	173, 235	Hypomotility ..	44
Fugues ..	106	Hyponoic mechanisms ..	112
Functional psychoses ..	17	Hypothalamus ..	220, 308
Fursac, de, J. R. 15, 96, 102, 191, 239		Hypothyroidism ..	325
		Hyslop, T. B., on neurasthenia ..	95
		Hysteria ..	102
		— aetiology of ..	111
		— in children ..	356
		— differential diagnosis of ..	105
		— historical notes on ..	102
		— psychopathology of ..	111
		— symptomatology of ..	103
		— treatment of ..	113
GABRIEL, Ernst, on addiction neuroses ..	291	Id, the ..	137
Ganser syndrome ..	62, 108	— Ideas, autochthonous ..	51
General paresis ..	9, 168, 309	— flight of ..	44
— aetiology of ..	311	— of influence ..	51
— history of ..	309	— overvalued ..	200
— pathology of ..	315	— of reference ..	198
— psychopathology of ..	316	Identification ..	71
— symptomatology of ..	312	Illusions ..	56
— treatment of ..	317	Immobility ..	41, 257
Genetics ..	19	Impotence ..	98, 105
Germ-plasm in relation to alcoholism ..	282	Impulsions in children ..	359
Gibbs, E. L., on cerebral dysrhythmia ..	241	Imputability ..	116
Gierlich on paranoid reactions ..	208	Incoherence ..	46
Giesinger, W. ..	102	Incontinence in children ..	343
Gillespie, R. D., on unreality feelings ..	162	Infantile sexuality ..	138
Gjessing, R., on nitrogen imbalance ..	220, 229	Infective-exhaustive states ..	24, 319
Gottlieb on insulin coma therapy ..	234	Inferiority, feelings of ..	93
Gralnick, A., on <i>folie à deux</i> ..	207	Influence, ideas of ..	51
Grand mal ..	245	Injuries, head ..	321
Gregor on attention in paretics ..	316	Insight ..	35, 48, 91
Group therapy with children ..	362	Insomnia ..	65
Gruenthal on Kraepelin's disease ..	183	Instinctual life ..	35
Gudden, von, on paranoia ..	189	Insulin coma ..	234
Guilt feeling ..	125, 151, 178	Intoxication, pathological ..	283
Gull, Sir W., on anorexia nervosa ..	118	Intracranial tumour ..	324
		Introjection ..	73
		Introversion ..	78
		Involuntary movements (see also MYOCLONIC STATES) ..	
		— in hysteria ..	105
		Involuntary melancholia ..	173
		— aetiology of ..	175
		— diagnosis of ..	183
		— historical notes on ..	173
		— physical changes in ..	182
		— premorbid personality in ..	177
		— prognosis and course of ..	185
		— psychopathology of ..	178
		— symptomatology of ..	179
		— treatment of ..	186
		— paranoia of Kleist ..	184
		— paraphrenia of Lerk ..	184
		Irreversibility ..	11
HALLUCINATIONS ..	56, 156	JAKOB-Creutzfeld disease ..	271
— drugs and ..	57	— <i>Jamais vu</i> ..	55, 248
— haptic ..	57	Janet, P. ..	79, 87, 102, 111
— hypnagogic ..	59	Jealousy ..	178, 193
— psychogenic ..	57	Jelliffe, S. E. ..	11, 136, 262
Haslam on general paresis ..	310		
Head injuries, psychiatric aspects of ..	321		
Hebephrenia ..	224		
Heilbrunn on biopsy in schizophrenia ..	218		
Hemphill, R. E., on involutional melancholia ..	183		
— biopsy in schizophrenia ..	218		
Henderson, D. K. ..	4, 162, 302		
Henry, G. W., on psychopathic personality ..	301		
Heredity ..	19		
History, family ..	36		
— personal ..	36		
— of present illness ..	37		
— sexual ..	37		
Hock on paranoid states ..	286		
Hoffer on post-encephalitic symptoms ..	262		
Hoffmann on epileptic equivalents ..	238		
Homosexuality ..	195		
— in children ..	346		
Huntington's chorea ..	254		
Huss, Magnus, on alcoholism ..	281		

Jones, Ernest	PAGE
Judgment	114
Jung, C. G.	34
	78, 138

K AHLBAUM on catatonia	214
Kalinowsky on treatment of schizophrenia	234
Kallmann, F. J., on genetics of schizophrenia	216
Klein, Melanie, on psycho-analysis in children	350
Kleist on paranoia	184, 230
Kleptomania	201
Kocher on concussion	323
Korsakow's psychosis	287
— treatment of	294
Kraepelin 5, 15, 102, 148, 174, 183, 190, 203, 206, 214, 215, 218, 239, 282, 310	
Kraepelin's disease	183
— paraphrenia	203
Kraft-Ebbing	5, 15, 310
Kretschmer	111, 112, 149, 230

L ABILITY, affective	68
Laforegue on the racial super-ego	129
Lange on paranoid syndromes	206
Langfeldt, G., on schizophrenic symptomatology	221
Lastéque on anorexia nervosa	118
Last, S. L., on <i>folie à deux</i>	207
Late catatonia of Urstein	184, 268
Leptosomatic type	149, 175
Lerks' involutional paraphrenia	184
Leucotomy, frontal	235
Lewis, Bevan	14, 102, 310
<i>Lex talionis</i>	101, 179, 358
Libido	11
Lugaro, E.	215
Lying in children	354
— pathological	55, 301

M CMENEMEY, W. H., on Alzheimer's disease	269
Magnan	5, 119, 191
Malaria and general paresis	317
Malingering	109, 115
Mania a potu	22
— acute	155
— delirious	157
— psychopathology of	150
— symptomatology of	153
Manic states, symptomatology of	153
Manic-depressive psychosis	148
— aetiology of	149
— diagnosis of	167
— history of	148
— involutional melancholia and	184
— personality in	150
— prognosis of	168
— psycho-analysis and	161
— psychopathology of	150
— treatment of	169
Mannerisms	43
Masserman on manic-depressive psychosis	165
Masoin on catatonia	214
Masturbation in children	345
Mattoid	191
Maudsley, H., on hysteria	102
Mechanisms, psychic	70
Melancholia, involutional	173
Memory, disorders of	33, 52
Mental activity	32

Mental deficiency	PAGE
Mill, John Stuart, on causation	4
Mirschbaum on biopsy in schizophrenia	140
Mood	218
Morphinism	32
Mott, F., on gonadal abnormalities in schizophrenia	295
Mutism	218
Myerson, A., on treatment of schizophrenia	42
Myoclonic states, psychoses with	236
Myxædema	237
	325

N AIL-BITING	346
— treatment of	304
Narcolepsy	247
Narcosis, prolonged	171
Negativism	42
Neisser, on catatonia	214
Neologisms	46
Neurasthenia	95, 167
— psychopathology of	99
— symptoms of	99
— treatment of	97
Nihilism	48, 49, 181
Noguchi on the <i>Spirochaeta pallida</i>	311
Noyes, A. P., on the affective psychoses	169

O BEDIENCE, automatic	42
Obsessional personality	121
— states	33, 119
— in children	126, 359
— descriptive account of	120
— historical note on	119
— psychopathology of	125
— treatment of	126
Obsessive thoughts	51
Occupational therapy	172, 236
Oculogyras spasms	256
Oedipus complex	101, 112, 138, 151, 358
Organic psychoses	5
Orientation, disturbances of	33, 51
Orlando on general paresis	318
Osborne, R. L., on palæophrenia	217
Overcompensation	75

P AIN	12
Palæophrenia	217
Palmer, H. D., on suicide	166
Pansexuality	143
Paralysis, hysterical	103
Paramnesia	55
Paranoia	5, 168, 189, 196
— aetiology of	192
— diagnosis of	208
— history of	189
— homosexual factor in	195
— prognosis of	209
— psychopathology of	194
— symptomatology of	196
— treatment of	210
Paranoid personality	192
— reactions	191
Paraphrenia	202
Parathyroid disease	327
Parkinsonism	256
Pathological intoxication	283
Paton on schizophrenia	214
Pavlov and Freud	13, 63, 93, 141
Pavor nocturnus	351
Pellagra and mental disease	329
Penrose, L. S., on genetics	19
Perception, disorders of	56

	PAGE
Perivascular infiltration ..	259, 316
Pernicious anæmia, psychoses with ..	330
Perplexity reactions ..	159
Persecution, delusions of ..	195
Perseveration ..	43
Personal history ..	36
Personality, double ..	107
— hysterical ..	105
— obsessional ..	121
— paranoid ..	192
— premorbid ..	9, 37
— in psychoneurosis ..	89
— psychopathic ..	300
— types of ..	37
Persuasion, treatment by ..	114
Petit mal ..	246
Phobias ..	125
— symbolism in ..	84
Pick's disease ..	270
Pituitary disease ..	327
Play technique ..	339
Pleasure Principle, The ..	138
Polyneuritis ..	289
Post encephalitic syndromes ..	256
Posture ..	41
Presbyophrenia ..	269
Presenile paraphrenia (Albrecht's) ..	184
— states, pathology of ..	184
Pressure of talk ..	227
Prison psychosis ..	109
Projection ..	72, 189
Projective reactions ..	189
Pseudo-dementia of Wernicke ..	109
Pseudologia phantastica ..	55
Psychic dynamisms ..	70
Psycho-analysis ..	10, 21, 23, 113, 136
Psychobiology ..	18
Psychogenesis of physical disease ..	13
Psychomotor symptoms ..	41
Psychoneuroses, aetiology of ..	111
— in children ..	355
— general features of ..	89, 147
— heredity and ..	94
— psychopathology of ..	111
— traumatic ..	115
— treatment of ..	113
Psychopathic personality ..	5, 259, 300
Psychoses, in children ..	360
— constitutional ..	4
— general remarks on ..	147
— organic ..	5
Psychosomatics ..	7
— in children ..	334
Psychotherapy ..	172
Puerilism, hysterical ..	109
Punishment in children ..	361
Putnam on the treatment of schizo-	
— phrenia ..	234
Pyknolepsy ..	247
Pyknomomatic type ..	149, 175
Pyromania ..	126

RATIONALIZATION

Reaction formation ..	74
Reality appreciation ..	75
— Principle, The ..	90
Reference, ideas of ..	138
Régis, E., on obsessional states ..	49, 198
Regression ..	120
Reik, Th., on psycho-analysis ..	81
Reiss, M., on involutional melancholia ..	114
— testicular biopsy ..	183
Reitman on suicide ..	218
Resistance ..	166
Retardation ..	56, 80
Reversibility ..	45, 160
	10, 11

	PAGE
Rigidity, hysterical ..	104
— Parkinsonian ..	256
Rosanoff on hysteria ..	102
Rothschild, D., on cerebral arterio-	
— sclerosis ..	278

SADLER, W. ..	96, 108
— Scheider on personality types ..	38
Schilder, Paul ..	286, 291, 348, 359
Schizophrenia, Freudian views on ..	219
Schizophrenic psychoses ..	212
— aetiology and pathogenesis of ..	216
— catatonic type ..	226
— diagnosis of ..	229
— differential diagnosis of ..	167, 230
— genetics of ..	216
— hebephrenic type ..	224
— history of ..	213
— phthisis and ..	216
— premorbid personality in ..	230
— prognosis of ..	232
— simple type ..	222
— somatics of ..	220, 230
— symptomatology of ..	221
— treatment of ..	233
Schulz, B. ..	19, 216
Senescence, psychotic reaction and ..	264
— aetiology of ..	265
— symptomatology of ..	267
Senile deterioration, simple ..	267
— pathology of ..	271
Sensation in hysteria ..	104
Sensorium ..	33
Sexopathy ..	143
Sexuality ..	138
— in children ..	138, 344
Shelton, P., on involutional melan-	
— cholia ..	186
Simmonds's disease ..	119
Skæ on involutional melancholia ..	173
Sleep ..	63
— disturbances of, in children ..	350
— treatment of ..	365
Somnambulism ..	63, 107
Spatz, H., on Alzheimer's disease ..	269
Speech ..	44
Spelmeyer on pathology of epilepsy ..	242
Stammering ..	352
— treatment of ..	365
Status epilepticus, treatment of ..	252
Stealing, in children ..	354
Stekel, W. ..	80, 114, 124, 131, 244
Stengel, E., on Alzheimer's disease ..	269
Stereotypy ..	42
Storrington, G., on perplexity reactions ..	159
Strohmayer, on feelings of unreality ..	134
Stupor ..	62, 227
Sublimation ..	78
Suggestibility ..	42
— in the child ..	336
Suggestion ..	114
Suicide ..	166
Super-ego, the ..	11, 73, 137
— racial, the ..	129
Suspicion ..	194
Symbolism ..	82
Symons, N. J., on schizophrenia ..	220
Symptomatology, general ..	40
Syphilis, acquired ..	306
— aetiology of ..	306
— cerebral ..	307
— congenital ..	306
— general paresis and ..	309
— as a genetic factor ..	23
— psychotic reaction and ..	306
Systematization ..	205

	PAGE		PAGE
TABES dorsalis	318	UNCINATE fits	247
Tanzi, E.	95, 102, 191, 215	Unconscious, the	137, 140
Tausk, V., on addiction	291	Unreality, feelings of	49, 134, 162
Temper outbursts in children	354	Urinary disorders in children	343
Testis, biopsy of	9, 218	Urstein's late catatonia	184
Therapy, analytic	144		
Thinking, autistic	50	VASCULAR disease, cerebral,	
— catathymic	50	diagnosis of	279
— dereistic	50	— — — pathology of	277
— obsessive	51	— — — prognosis of	279
— retarded	45	— — — psychosis and	275
Thought, blocking of	45	— — — symptomatology of	276
— content of	32	— — — treatment of	279
Thumb-sucking	346	Vasomotor disturbances in children	349
— treatment of	364	Vaso-vagal attacks	247
Thyroid disease	26	Verbigeration	227
Tics in children	347	Verrücktheit	189
— — treatment of	364	Virilism, adrenal	208, 328
— post-encephalitic	257	Volubility	44
Tomasson, H., on heredity in affective		Vomiting in children	342
psychoses	149		
Toxins, chemical	332	WANDERING in children	354
Trance	62	Wassermann reaction	308, 314
Transference	145	Wernicke's affective melancholia	174
Trauma and neurosis	108, 116	— encephalopathy	285
— legal aspects of	118	— pseudo-dementia	109
— mental	1, 116	Wolff on anxiety and conflict	13
Truancy	354		
Tube-feeds	169, 186		
Tuke, H.	14, 95, 102, 174, 190		
Tumour, intracranial	324		
Twilight states	61, 106		

ZONDEC on metabolism of bromine 165

Form No. 3.

PSY, RES.L-1

**Bureau of Educational & Psychological
Research Library.**

The book is to be returned within the date stamped last.

30.8.02

29.6.68

WBGP-59/60-5119C-5M

OXFORD BOOK
& S. Co.
CALCUTTA
NEW DELHI

132
oco
Form No. 4

BOOK CARD

Coll. No. 192.....
Author O'CONNOR William A.
Title Psychiatry.....

Accn. No. 345

Date.	Issued to	Returned on
30.8.52	Asst.	
29.6.58	245	
.....

